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ABSTRACT

The numerous conclusions and recommendations presented stem from a 1987-1988 study that addressed four questions about postsecondary education in nonmetropolitan Australia: (1) To what extent does the system monitor and respond to demographic and labor market changes?; (2) What progress has been made toward achieving cooperation and coordination between postsecondary sectors and institutions?; (3) What barriers exist to providing opportunities for persons in nonmetropolitan areas to gain greater access to postsecondary education?; and (4) What further steps should be taken to provide more opportunities? In this context, nonmetropolitan does not mean rural but refers to all areas outside the six Australian capital cities and outside the following cities/areas: Canberra, Newcastle, Wollongong, Geelong, and the Gold Coast. The material in the following sections answers the four research questions: (1) an overview of postsecondary education provision; (2) demographic and labor market characteristics; (3) policy for the provision and development of postsecondary education; (4) initiatives taken to expand the provision of postsecondary education; (5) factors limiting an expansion in access to postsecondary education; (6) proposals to expand the provision of postsecondary education; (7) census tables; (8) two maps that show population changes in selected government areas of Victoria from 1976-1986; and (9) a map of Department of Local Government and Administration regions. A 161-item bibliography completes the report. (CML)

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TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT

THE PROVISION OF POST-SECONDARY EDUCATION IN NON-METROPOLITAN AUSTRALIA:

Planning and Policy Considerations

TREVOR BUDGE
Senior Research Fellow 1987/88

ADELAIDE 1989

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FOREWORD

This research project was undertaken during late 1987 and early 1988. It has been a period characterised by an unprecedented debate about the relevance of, and arrangements for, post-secondary education. Massive administrative changes in all aspects of education have taken place at the Commonwealth, State and institutional level. Three States Victoria, Queensland and Western Australia have implemented a complete overhaul of their TAFE administration, firmly placing them under the umbrella of a training and labour market agency. In Victoria further education has been separated from its traditional Kangan home of TAFE and made into a separate Division within the Ministry of Education. All of these changes have meant that a number of the references to particular organisations or persons in the report have very quickly become dated although no less relevant in relation to the provision of post-secondary education in non-metropolitan Australia.

In the first instance this report and its recommendations are directed to the State and Territory TAFE Directors. This is appropriate because the project was agreed to by them and has partly been funded by their allocations to the TAFE National Centre. However, if the report is to be fully effective, it must have a wider audience. Those aspects dealing with policy and the broad directions of post-secondary education provision need to be brought to the attention of persons, boards, commissions and councils who make and implement policy at the Commonwealth, State and local level. It is also important that the recommendations reach the practitioners in the field who will make many of the critical decisions which will determine whether opportunities for persons in non-metropolitan areas can be expanded.

This report does not aspire to idealistic, unattainable goals but aims to promote the notion that all persons in non-metropolitan areas should have the same degree of access to post-secondary education opportunities as those in metropolitan areas. The scattered nature of Australia's non-metropolitan population, the vast distances involved and the sheer cost of communication and transport precludes such a goal being achieved. The report does believe however, that significant improvements can be made and that there are many more opportunities which can be created for non-metropolitan residents.

In preparing this report my appreciation goes initially to Mr Ian Predl, former Chairman of the Victorian TAFE Board, who so willingly supported my application for the position of Senior Research Fellow. Undertaking the fellowship meant that I have spent considerable periods away from my permanent position at the Loddon-Mallee Regional TAFE Board, in Bendigo and placed considerable extra burdens upon the other staff who have made my absences possible. I extend my thanks to Geoff, Paul, Gwenda and Evelyn. In particular I thank the Chairperson of the Regional TAFE Board, Mrs Elwyn Rogers who has never failed to support and encourage me at a personal and professional level.

The conduct of this TAFE Senior Research Fellowship was largely made possible by the financial support of the Victorian TAFE Board (now State Training Board). Following recent administrative changes in Victoria that support was continued by Ms Judith O'Neill, Acting General Manager of the Division of Further Education, for which I am grateful. The position of senior research fellow was created by the TAFE National Centre for Research and Development Ltd. The friendly atmosphere of the Centre and the genuine interest shown in my project by the Executive Director, Dr Bill Hall and his staff was always appreciated and made my task so much easier. The TAFE National Centre generously supported the project with secretarial assistance and word processing and facilitated my visit to a number of areas in Australia where I was able to talk with many persons involved in TAFE and higher education. To those persons who gave their time so that I could gain further material for the project please accept my thanks. Dr Graeme Hugo and Mrs Margaret Young from Flinders University provided continuing support in the collation and presentation of census data which provided the basis for much of the demographic material in the report. My thanks is also extended to them.

My greatest debt is to my wife Wendy and children David, Ainsley and Hayley who cheerfully accepted long absences to enable me to complete this project.

July 1988

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1. INTRODUCTION

There are two terms used in the report which require clarification.

Firstly, the term *non-metropolitan* is defined as all areas outside the six State capitals and the cities of Canberra, Newcastle, Wollongong, Geelong and the Gold Coast. Non-metropolitan includes all the other major cities and towns throughout Australia as well as the population of rural and remote Australia. The term non-metropolitan therefore does not simply equate with the term rural, which is generally associated only with agricultural and remote locations.

Secondly, the term *post-secondary education* covers all forms of education and training beyond attendance at secondary schools. It includes the formal institutions; TAFE colleges, colleges of advanced education and universities, including their off-campus and external studies, as well as 'non-formal' adult education through a variety of learning centres and organisational structures. The report, whilst dealing with post-secondary education generally, very largely focuses on TAFE and the TAFE/higher education interface.

The report seeks to determine what has been done and recommends what should be done at the Commonwealth, State, sectoral and institutional level to provide an appropriate range of responses to the needs of persons in non-metropolitan areas for post-secondary education.

As a consequence of that approach four key questions have been addressed.

1. To what extent does the post-secondary education system monitor and respond to demographic and labour market changes in non-metropolitan Australia?

2. What progress has been made towards achieving co-operation and co-ordination between post-secondary education sectors and institutions in non-metropolitan Australia?

3. What barriers appear to exist to providing opportunities for persons in non-metropolitan areas to gain greater access to post-secondary education?

4. What further steps should be taken and initiatives tried to provide more opportunities?

2. CONCLUSIONS AND RECOMMENDATIONS

The major finding of this project is that the present arrangements and structures for the provision of post-secondary education and training in non-metropolitan areas seriously restrict our capacity to understand and meet the needs for non-metropolitan areas thus affecting our ability to deliver relevant programs and services. It is suggested that this has come about because policy and decision-makers have given insufficient attention to the particular characteristics and requirements of non-metropolitan Australia. Generally, policy has been developed for the national or state level with inadequate consideration of the substantial differences between metropolitan and non-metropolitan regions and areas.

The Commonwealth has implemented a single model of provision which is best suited to metropolitan Australia. Whilst various states and in some cases particular regions have applied differing structures, the general pattern at the State level has been to apply a single model approach with similar ground rules based on sectors and the separation of labour market programs from education and training provision. State borders which cut across rural regions have been major barriers; institutional rivalry and limited autonomy for institutions responsible to central administrations have all been restrictions to devising solutions to non-metropolitan needs.

2.1 CONCLUSIONS

2.1.1 Post-secondary education provision across Australia is complex, this complexity resulting from various historical forces and a series of political decisions taken at the Commonwealth and State levels in response to identified and documented educational need. As a total system it is made more difficult to understand by:

- the different administrative structures adopted by each state and territory;
- the dual control mechanisms exercised at the Commonwealth and State/Territory levels;
- the split of tertiary education into four distinct sectors - university, advanced education, TAFE and adult education;
- the various levels of autonomy enjoyed by the different sectors and institutions.

2.1.2 The capacity of post-secondary education to respond to the needs of industry and the community has been challenged, particularly with respect to TAFE and more recently to higher education.

2.1.3 The policy environment created at the Commonwealth, State and local levels to support the provision of post-secondary education in non-metropolitan areas depends on a number of factors, including:

- The degree of centralisation of the system.
- The level of autonomy given to, or taken by, institutions at the local or regional level.
- The spirit of entrepreneurship fostered by the system at the local level.
- The level of 'community' involvement which is provided or invited with respect to the development of an institution's educational profile.
- The capacity of institutions to respond to changing demographic and labour market needs.
- The relationship of institutions with other government agencies involved in economic development services and labour market programs.
- The level of integration, co-ordination and co-operation between education sectors, services and institutions at the local and regional level.

2.1.4 Non-metropolitan Australia, which comprises one in three Australians, or a number almost equal to the population of New South Wales, has substantially exceeded the overall population growth rate of metropolitan Australia over the last fifteen years. This situation has considerable policy and planning implications.

2.1.5 Non-metropolitan Australia has many demographic and labour market characteristics which are quite different from those of metropolitan areas. Equally as important, each region and local area across non-metropolitan Australia has variations from, and in some cases substantial differences to, the overall non-metropolitan pattern.

2.1.6 Whilst no single model of the pattern and characteristics of non-metropolitan Australia can adequately describe the types of demographic and labour market structures which exist, a simplified model recognises four basic structural types, these are:

- Areas experiencing absolute population decline, generally these areas have high proportions of the work-force still in extensive farming operations.

- Areas experiencing stagnation or very slow growth, where the agricultural and service sectors have stabilised and there is little prospect for secondary industry employment.

- Areas experiencing steady sustained growth, based on either a combination of factors or one outstanding factor such as the natural environment, mineral deposits, tourist growth, previously unrealised agricultural resources, regionalisation of government services or service sector growth.

- Areas experiencing very fast growth, significantly above the national and state averages. (These areas generally have more pronounced characteristics than those experiencing steady sustained growth.)

2.1.7 These four types of areas can also be characterised in terms of their geographical location and proximity to a range of post-secondary education services. At the broadest level six types can be identified:

- Rural, remote and isolated.

- Rural but with limited accessibility to services e.g. the Wimmera area of Victoria, Northwest Tasmania.

- Rural with high accessibility to metropolitan or major provincial services e.g. metropolitan fringe.

- Urban, remote and isolated with limited accessibility to services e.g. Mount Isa, Broken Hill.

- Urban, remote and isolated but accessible to a range of services e.g. Darwin, Townsville.

- Major provincial centres with a range of services e.g. Launceston, Ballarat, Bendigo.

2.1.8 The distribution and provision of post-secondary education services and facilities across non-metropolitan Australia does not follow any clear pattern which relates service provision to the level of growth of areas or their geographic proximity to services.

2.1.9 Australia's record to date on the provision of post-secondary education opportunities to non-metropolitan Australia is generally patchy, lacks co-ordination and direction and is built on outdated and inappropriate structures and arrangements.

2.1.10 The continuing separation and reinforcement of the various post-secondary education sectors and the development of separate institutions in non-metropolitan areas is often likely to lead to a narrowing of opportunities and the duplication of services and resources.

2.1.11 To ensure a widening of post-secondary education opportunities in non-metropolitan areas it will be increasingly necessary for each region to prepare a profile of its resources and programs and match those to the demographic and labour market structure of the area.

2.2 RECOMMENDATIONS

In making a series of recommendations it is acknowledged that because they largely deal with broad policy and planning considerations at the Commonwealth and State levels they will have varying degrees of relevance and may not necessarily be appropriate in all instances. Some recommendations directly relate to non-metropolitan areas whilst others may have wider application.

2.2.1 Post-secondary education in non-metropolitan Australia should be planned and developed as a single entity rather than as a series of separate sectors and institutions. The closer the existing system can move to that type of model the more likely that there will be:

- an increase in the range of educational opportunities and options for non-metropolitan Australians;
- greater relevance in program provison to regional and local labour markets and educational needs;
- more effective and efficient use of capital and human resources.

2.2.2 Non-metropolitan Australia needs a system of post-secondary education which:

- strengthens the range of post-compulsory options and offerings available to young people completing Years 11 and 12 of secondary school;

- provides for and encourages a co-operative and co-ordinated approach between different sectors so as to prevent duplication and maximise the use of resources and the opportunities available to people;

- supports in practical ways, students enrolled in external or off campus studies regardless of which institution they are enrolled with;

- ensures local delivery of education, labour market and training programs which reflect and are integrated with the needs and characteristics of their local and regional economies;

- provides clear career paths for students to progress through various education sectors and credentials;

- maximises the opportunities for students to participate in post-secondary education whilst remaining resident in their local community;

- provides courses and programs from different institutions which can be grouped in a flexible manner so that individuals obtain general qualifications and credentials rather than specific qualifications from a particular institution.

These requirements are not necessarily specific to non-metropolitan Australia but they are essential to post-secondary education provision for non-metropolitan Australia.

2.2.3 Each state and territory TAFE authority should:

a) Critically examine the impact of existing statewide policies on non-metropolitan areas and the appropriateness of current policies (if they exist) for the provision of TAFE in non-metropolitan areas in order to develop and adopt:

- a clearly understood consultative process for the preparation of policies for the provision of TAFE in non-metropolitan areas;

- a mechanism to monitor and respond to changes in the demographic and labour market profile of non-metropolitan areas;

- clear priorities for the future development of facilities, programs and resource allocation for the provision of TAFE in non-metropolitan regions and colleges;

- open and constructive co-operative arrangements with all other educational sectors at the central and institutional level to ensure a co-ordinated approach to the provision of post-secondary, and where possible, post-compulsory education in non-metropolitan areas;

- a process which monitors and evaluates the effectiveness of policies relating to the provision of TAFE in non-metropolitan areas.

b) Consolidate any existing, small non-metropolitan TAFE colleges into multi-campus regional colleges. Each existing and new multi-campus regional college should be developed under conditions which guarantee that such colleges:

- have a defined geographical area of responsibility;

- have an administrative and governing structure which reflects its multi-campus and regional responsibility;

- are provided with sufficient autonomy to negotiate arrangements for the delivery of programs to meet the particular needs of its clients;

- have a clearly developed charter and capacity to develop co-operative relationships with higher, post-compulsory, and adult education.

c) Work with the relevant Commonwealth and State authorities responsible for the provision of senior secondary and higher education in non-metropolitan areas undertaking to:

- review the existing distribution of post-compulsory education facilities and resources in each region;

- develop regional strategic plans for post-compulsory education so as to better use and integrate the provision and development of programs, facilities, equipment and staff resources;

- examine the extent to which facilities, learning resources, computers and other equipment and student residentials could be jointly developed and used;

- provide for strategic plans to be prepared for each region to the specification of a board or committee of which the majority of members are from the local community, and who represent employment, training and educational interests drawn from Commonwealth and State departments and agencies, industry, employees, community and educational institutions.

2.2.4 That the TAFE National Centre:

a) Develop a proposal and seek support from the Department of Employment, Education and Training (DEET) for the preparation and wide distribution of a concise, regularly updated profile and analysis of the demographic and labour market structure of non-metropolitan Australia, its regions and major population centres as a specific aid to Commonwealth and State authorities, regions and individual institutions to assist forward planning and policy development.

b) In conjunction with other relevant organisations organise an annual or biennial conference on the planning, development and delivery of post-compulsory education and training in non-metropolitan areas with the specific aims of:

- providing a forum for an exchange of information and details on initiatives by different States, sectors and institutions;

- promoting a joint approach to common problems between sectors;

- providing an opportunity for Commonwealth and State authorities to review and consider initiatives taken in non-metropolitan areas across States, and to address major barriers and limitations to further co-operative development.

c) Document significant initiatives undertaken in non-metropolitan areas to expand post-compulsory education opportunities and publish a series of case studies describing these initiatives.

d) Prepare guidelines on how to undertake a planning study of technical and further education needs in non-metropolitan regions and colleges which covers:

- development of an institutional profile;

- research to determine education and training needs;
- integration with economic strategies;
- relationship with industry and the community;
- co-ordination and co-operation with other education sectors.

e) Prepare and widely distribute a short guide to the administration and structure of TAFE in each of the States and Territories of Australia in a format which allows the Centre to update the document at regular intervals.

2.2.5 That the Conference of TAFE Directors recommend to the Department of Employment, Education and Training that they give strong consideration to the following proposals.

a) The identification of a series of key, strategically located regional centres throughout non-metropolitan Australia which are to be developed as student learning centres. Such centres to be based on:

- existing or planned TAFE facilities;
- existing senior secondary school facilities;
- existing or planned higher education facilities;
- the integration of existing or planned facilities from the above sectors; or
- other suitable community facilities.

Such centres to provide learning resources and a tutorial support centre for any student in the region enrolled in any post-compulsory course from any institution.

b) Establish in conjunction with an appropriate institution or organisation, a national data base of tertiary education courses and a support system which provides;

- high quality, regularly updated information;
- access by a toll-free telephone enquiry system;

- course information linked to career profiles (similar to the Victorian Job and Course Explorer model (JAC)) so that any student or potential student from anywhere in non-metropoliton Australia can quickly and cheaply obtain information regarding;

  - career requirements,

  - entry requirements,

  - courses and credentials for all post-secondary education institutions in Australia both on- and off-campus, and for

  - government-sponsored training and labour market programs.

c) Prepare a set of policies, in conjunction with the States and Territories, relating to:

- cross-sectoral contracting arrangements;

- credits for courses between sectors and institutions;

- funding and staffing arrangements for cross-sectoral development;

- use and funding of shared facilities for cross-sectoral development.

Furthermore a regularly updated document be prepared detailing all existing and planned arrangements.

d) Within the context of these formulated policies on cross-sectoral arrangements and credit transfer between courses, develop policies specific to those persons located in geographically remote areas.

e) Develop with the relevant State authorities, a set of policies and a consistent set of priorities regarding the future need for and development of student residential accommodation for TAFE and higher education students in non-metropolitan regions and centres.

f) Develop a clear set of policies regarding arrangements for:

- course provision

- shared use of facilities and resources
- credentials
- staffing arrangements
- travel arrangements

for those non-metropolitan regions which cross State boundaries and involve institutions from different sectors located in different states.

g) Comprehensively review the TAFE arrangements in each State for the education and training of employees in the tourism, hospitality and catering industry in non-metropolitan regions and provincial centres which have experienced, and are projected to experience major growth in employment and development in that industry.

3. OVERVIEW OF POST-SECONDARY EDUCATION PROVISION IN NON-METROPOLITAN AUSTRALIA

The distribution of post-secondary education facilities throughout non-metropolitan Australia is a result of a complex interplay of a wide range of factors. Facilities outside the major metropolitan areas have historically encompassed agricultural colleges, technical colleges, university study centres and teachers colleges.

The 1988 Commonwealth Tertiary Education Commission Working Party on Post-Secondary Rural Education in Australia provided the following overview of provision.

TAFE

2.1 TAFE is the most visible post-secondary education provider in most areas of rural Australia and it has undergone rapid growth in recent years with enrolments more than doubling between 1974 and 1985. In 1985 there were approximately 860,000 students in TAFE award courses, and a further 460,000 enrolled in adult education non-award courses. These courses were offered through more than 200 technical colleges including around 130 located in non-metropolitan areas plus the use of a great many annexes and a variety of other providers of TAFE to further extend provision.

Higher education

2.2 Higher education in Australia is provided through 20 universities and 45 colleges of advanced education (CAEs) of which 2 universities and 15 CAEs are located outside the capitals and other major cities. In 1987 only some 7.4% of total university student enrolments and 20.7% of CAE student enrolments were in non-metropolitan institutions. In addition to the non-metropolitan institutions some capital city based CAEs have campuses located in regional areas. If higher education is defined as courses of study leading to the award of associate diploma, diploma and degree, increasingly the TAFE system is becoming involved through the offering of associate diploma and diploma courses and institutes of tertiary education are emerging which offer a range of higher education and TAFE courses.

Distance education

2.3 In 1986 Australia had about 110,000 tertiary external students: 17,400 enrolled in universities, 32,000 enrolled in colleges of advanced education and some 60,000 enrolled in the TAFE system. Roughly equal numbers of these were from rural and metropolitan areas...

Non-award education

2.4 An avenue of education also open to people in rural Australia is adult and continuing education in the form of short non-award courses provided by State agencies, private organisations and community groups as well as tertiary institutions" (CTEC 1988, p.5).

A closer examination of the characteristics of non-metropolitan post-secondary education reveals that:

- Generally regional colleges of advanced education are small by comparison with their metropolitan counterparts, include teacher training, have taken on a distinct regional role and have developed an extensive external studies role.

- All states except Tasmania support at least one agricultural college, although in some states such a college is part of a college of advanced education; Victoria for example has a multi-campus agricultural college.

- TAFE colleges are widely distributed throughout non-metropolitan Australia but they vary in size. Colleges in provincial centres are large and comprehensive in their program offerings but those in smaller centres are colleges in name only and have very restricted program offerings. Considerably different patterns of provision have been developed by the various states with New South Wales opting for a larger number of colleges in comparison with most other states who have consolidated provision into major centres.

- The provision of adult or non-award education follows a different pattern in each State and Territory and its relationships to TAFE varies from very strong links to a separate provision.

So many of the difficulties in addressing the non-metropolitan scene are attributable to a lack of awareness and understanding of the magnitude of the situation. Some of the existing approaches examining non-metropolitan areas mask the population size of non-metropolitan areas. For instance the interesting comparison can be made that the total non-metropolitan population is 50% greater than that of Sydney. Yet while Sydney has 3 universities and 10 CAEs and 82,000 students, non-metropolitan Australia has only 2 universities and 15 CAEs for 55,000 students (CTEC 1988,12). Whilst this statistic is a crude comparison it does reveal significant anomalies. Residents of Sydney have a choice of up to 13 higher education institutions and numerous TAFE colleges. Most non-metropolitan residents' on-campus attendance is limited to one or two generally small institutions.

The characteristics of post-secondary education provision varies between states partly because of the demographic nature of each state. In states such as Western Australia and South Australia provision is concentrated in the capital city and the non-metropolitan provision is generally focused on relatively small TAFE colleges. By contrast, New South Wales, Victoria and Queensland have a number of regional advanced education institutions. New South Wales and Queensland have a dispersed network of TAFE colleges given their size and population distribution; Victoria by contrast has opted for a small number of large regional TAFE colleges. Tasmania and Northern Territory have produced patterns of provision concentrated at key locations with particular innovations designed to address their geographic circumstances.

4. THE DEMOGRAPHIC AND LABOUR MARKET CHARACTERISTICS OF NON -METROPOLITAN AUSTRALIA

Demographic Structure

Since the late 1800s in Australia, the demographic trend has been for a continued increase in the proportion of persons living in metropolitan areas. Australia is frequently cited as one of the world's most urbanised countries. Three out of every five Australians live in the five largest cities. Somewhat different from most other developed countries, Australia lacks an extensive network of middle sized urban areas - only Newcastle, Canberra, Hobart, Wollongong, Geelong and the Gold Coast are between 150,000 and 1/2 million persons. Nearly 20% of all Australians live in cities and towns of between 1,000 and 100,000 persons whilst only 12% of these are classed as rural.

In addition, the long-term demographic outlook appears to be a decrease in the proportion of Australia's population located in non-metropolitan areas. This factor, together with the preceding has underpinned much Australian economic policy relating to the allocation of resources. Metropolitan areas have been where the action is. Although the total population of non-metropolitan Australia has consistently been increasing it had a weak case for even a proportional share of resources whilst it had a declining share of population.

Non-Metropolitan Population Growth

In the early 1970s a phenomenon which has become known in demographic circles as 'the turnaround' occurred. The proportion of persons in non-metropolitan Australia reversed its long downward trend and proceeded to gain population at the expense of metropolitan areas - particularly Melbourne and Sydney. The trends on the graph below have been confirmed by the release of the 1986 Census results. This pattern is not restricted to Australia and has been observed in many Western countries notably the United States of America.

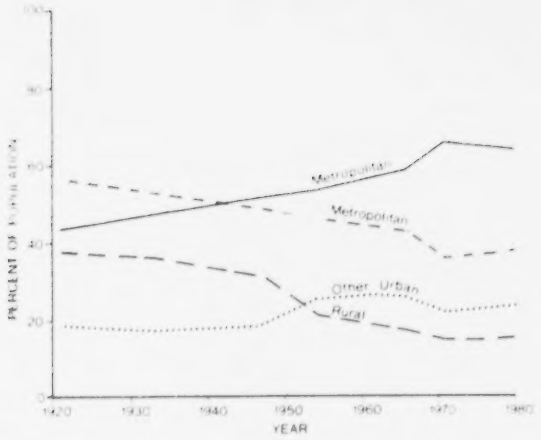

Figure 1. Australia: changing distribution of population between metropolitan, other urban and rural sectors 1921–81. (*Sources*: Australian Bureau of Statistics, census of 1921, 1933, 1947, 1954, 1961, 1966, 1971, 1976 and 1981.)

(Source: Hugo 1983)

Reference to the tables in Appendix A show that the proportion of Australians living in non-metropolitan Australia has increased since 1976. (The tables have been prepared to embrace not only the metropolitan areas but also to include large commuting areas around each major centre (generally 60-70 kilometres)). Even when allowances are made for this commuting area which is growing rapidly, non-metropolitan areas are still growing faster than the greater metropolitan areas. However growth rates across Australia are not uniform, and the trends mask continuing decline in many rural areas. In some States, metropolitan growth is marginally greater than non-metropolitan. However, in the two most populous States, the pattern is clear and significant. In summary, non-metropolitan Australia had 29.96% of Australia's population in 1976. By 1986 this figure had increased to 31.00%. During that period the growth of Sydney and Melbourne although accounting for over 25% of the total Australian population increase, still only represented a growth of 10.16%.

These breaks with long-term trends are not of dramatic proportions but they are significant insofar that much Australian economic planning has been influenced by the view that the population of non-metropolitan Australia would continue to decline. Perhaps even more relevant is that the growth in non-metropolitan areas is very much focused on certain areas and cities. Generally it is to be found in urban centres with a population of over 10,000 and in certain regions undergoing massive economic change.

The Magnitude of Non-Metropolitan Population Growth

A number of approaches can be taken to assess the magnitude and demographic relevance of Australia's non-metropolitan regions. These approaches expand our comprehension of the problem and provide an entirely different perspective from the fragmented viewpoint gained by a state capital overview.

- The non-metropolitan population of the three largest states, New South Wales, Victoria and Queensland is larger than the total population of the three smaller states and Northern Territory.

- Between 1976 and 1986 the total non-metropolitan population growth in Australia exceeded the growth in Sydney and Melbourne combined for the same period, despite the fact that the two cities benefited significantly from overseas immigration.

- Non-metropolitan population growth during 1976-1986 also exceeded the combined growth which took place in Brisbane, the Gold Coast, Perth, Adelaide, Hobart and Canberra for the same period. These alternative approaches to assessing the significance of Australia's non-metropolitan areas certainly offer a new perspective and lead us to question whether these areas have received comparable economic support and educational provision. The dispersed nature of Australia's non-metropolitan population and the discontinuity caused by state divisions often limits the attention Australia gives to its non-metropolitan population.

Explanations for Non-Metropolitan Population Growth

Analysis of the demographic factors which have contributed to these changes reveal that since 1971:

- internal migration has been characterised by a small net inflow to non-metropolitan areas;

- there has been increased retention in non-metropolitan areas of persons in 15-19 age group; and

- a substantial slowing in migration of 20-24 age group from non-metropolitan areas has taken place.

The 1981 Internal Migration Study by Maher and McKay (1986) canvassed a range of factors to explain the phenomenon:

> . . . while purely economic factors may be of paramount importance in explaining the patterns of inter-regional migration, for some groups within society, non-economic motives may be far more important. Retirement migration, and the movement that takes place in anticipation of leaving the labour force, is an obvious case in point. But it has already been seen that the general movement out of the large cities and into smaller communities, especially by young couples with small families, is essentially a search for what is perceived as a better environment or lifestyle. For such people, the availability of a job is still very important, but given the reduction of the state capital city monopoly on jobs, especially since the decline in the relative importance of the manufacturing sector, and the availability of service sector jobs in the smaller urban centres, more people are now taking advantage of greater locational freedom. For the unemployed, the great concentration of movement into certain locations makes it clear that a particular type of environment is being sought. For many young people previously, the move to the capital city was necessitated by the desire to enter tertiary education. With the opening of a number of colleges in regional centres this move is now not so essential, and many young people are choosing to stay out of the city . . . (p.88).

Other writers such as Jarvie, Hugo and Smailes have also advanced a range of factors to explain the turnaround.

The most commonly-accepted factors are:

- reduction in the growth of manufacturing jobs in the large urban areas;
- differential in housing prices between metropolitan and non-metropolitan areas;
- development of facilities in non-metropolitan areas including TAFE and higher education;
- technology increasing the flexibility of workplace location;
- early retirement;
- slowing of the decline in primary employment together with an increase in tertiary employment relative to secondary employment.

Many of these factors singly or in combination have reduced the long-term propensity for people, principally young people, to migrate from non-metropolitan areas to metropolitan locations.

Labour Force Changes

These demographic changes both reflected and caused significant developments in the labour market of non-metropolitan Australia. Non-metropolitan population increase has produced corresponding employment growth. Considerable debate exists as to whether the turnaround is population or job-led. The proportion of the workforce in non-metropolitan Australia is rising by comparison with the proportion in metropolitan areas. For example, the total number of persons employed in urban areas with a population exceeding 100,000 rose between 1976-81 by 6.4%, for urban areas with a population of 1,000 to 100,000, it increased by 15.7% (Hugo, 1983).

During the 1971-81 intercensal period, the major labour force growth rate for males was in non-metropolitan urban areas (twice the rate of metropolitan areas). Small towns and rural areas also did better than metropolitan areas. For females, the labour force growth rate was over three times that for males. Female labour force growth rate in urban centres and small towns was 50% higher than that for metropolitan areas. The rural area growth rate in the labour market was three times that of metropolitan areas. Between 1971 and 1981, 47% of the jobs were created where 37% of the population resided.

In the context of labour market studies there has only been one recent comprehensive and relevant report compiled, entitled Rural Labour Markets in Australia edited by R.A. Powell and published by the Bureau of Labour Market Research (1985). This report clearly identified that rural labour markets differ significantly from other labour markets in a number of important characteristics. They are, for instance, much more highly specialised in their employment opportunities and activities and are more unstable and seasonal. The BLMR study identified 17 distinctly different labour markets in non-metropolitan urban centres.

Furthermore, this study identified (p.317-319) five features of rural (non-metropolitan) labour markets which distinguished them from metropolitan labour markets.

1. Rural labour markets tend to have a high level of specialisation in particular basic activities with corresponding concentrations of employment in those activities.

2. The array of employment opportunities in terms of occupational and skills requirements is not as great as in metropolitan areas.

3. There is a high level of dependency among some sectors but relatively little dependency of rural economies on each other.

4. Spatial characteristics have a considerable impact on structure, the degree of overlap between rural labour markets is small and this contributes to the limited flexibility.

5. There is considerable diversity in many of the attributes of rural labour markets even among economies of similar size.

The BLMR study considered that the major factor underlying the change perceived in rural labour markets has been the population 'turnaround'. However, even that is a crude measure. There is tremendous variation in the patterns between regions. Powell (1985) states (p.302) that it is of high priority 'to develop an understanding of that diversity in terms of population trends and other labour market characteristics'. He further comments:

> '. . .that an important policy issue in Australia is the relative access of the population to the full array of services especially those provided by the public sector. This comes to the fore in relation to education and access to special labour training programs' (p.316).

Impact of the Tourism Industry on Non-Metropolitan Areas.

Of increasing significance to the labour market of many non-metropolitan regions is the tourism industry. Although the growth of mining has been a major catalyst in some regions, tourism and its associated employment areas has had an impact on nearly every non-metropolitan area. For those labour markets where the tourism industry is a relative newcomer, the educational and training demands which the rapid growth has created have been impossible to meet. For many communities and regions and not only the well known resort areas, tourism represents the major employment growth area and for some it represents the only one. For too long this industry has been regarded by many central agencies as a short-term phenomenon and one which was metropolitan based and whose training needs could be handled by a single metropolitan TAFE College. The result is a gross shortfall in training, more specifically in non-metropolitan areas, with much of the training lacking credibility with industry. Furthermore there is a particular shortage of programs provided by either TAFE or the higher

education sector for middle management positions in the industry. The rapid changes in the non-metropolitan labor market brought about by the tourism industry require a new policy approach and appropriate action. (see Rec 2.2.5(g))

The Metropolitan Perception of Rural Areas

One of the most basic distinctions made in the analysis of the distribution of population, economic activity and the supply of human services is that between urban and rural locations.

The intensity in urbanisation over the last few centuries has been accompanied by the development of a perception that in some way, an increase in the percentage of the population residing in urban areas is a reflection of progressive economic and social development within a society. Accordingly, a range of widely accepted stereotypical differences between urban and rural populations have developed. Hugo (1986a) grouped them into nine categories.

Factor	Urban	Rural
1. Economy	Dominated by secondary and tertiary activities	Predominantly primary industry and supporting it
2. Occupational structure	Manufacturing, construction, administration and service activities	Agriculture and other primary industry occupations
3. Educational levels and provision	Higher than national averages	Lower than national averages
4. Accessibility to services	High	Low
5. Accessibility	High	Low
6. Demography	Low fertility and mortality	High fertility and mortality
7. Politics	Greater representation of liberal and radical elements	Conservative, resistance to change
8. Ethnicity	Varied	More homogeneous
9. Migration levels	High and generally net in-migration	Low and generally net out-migration.

Whilst many of these traditional stereotypical differences are becoming increasingly blurred, they are still highly relevant to the way in which society views different geographical areas: accordingly they strongly influence the policy development process. Continuing to equate non-metropolitan with rural further highlights a stereotypical approach.

Much of the current distribution and pattern of post-secondary education provision was planned during the 1970s - a policy environment quite different from that which exists today. The increasing demographic and labour market significance of non-metropolitan Australia and the regions where growth is focused must be acknowledged and policies developed accordingly - at the national, state and institutional level.

Hugo's recently published book Australia's Changing Population (1986b) has summarised the consequences of the lack of attention to such matters.

> . . . There is almost no major planning or policy issue facing contemporary Australia which does not have a demographic dimension. Yet, paradoxically, this dimension has received very little explicit attention among policy makers and planners, and public awareness of population issues has remained very limited. This is partly because the gradual nature of these changes tends to mask the profound ways in which they are reshaping society . . . In the past deficiencies in the planning of the allocation of scarce resources in Australia, within all three tiers of government as well as in the private sector, can be directly traced to a lack of availability of (or failure to consider) up-to-date information on demographic trends and their linkages with social and economic factors. (p. 1.)

5. POLICY FOR THE PROVISION AND DEVELOPMENT OF POST-SECONDARY EDUCATION IN NON-METROPOLITAN AUSTRALIA

During the last fifteen years policy for the provision and development of post-secondary education in non-metropolitan Australia has generally been developed as a sub-set of either broader post-secondary education policy or of rural policy generally.

The direction in policy development has usually been set by the Commonwealth through the Federal Minister and the relevant Commonwealth department or agency - generally the Commonwealth Tertiary Education Commission (CTEC), its predecessors and now by the Department of Employment, Education and Training (DEET). At the State level a variety of bodies, such as post-secondary education commissions, higher education boards, TAFE departments and education ministries have pursued particular policies and directions in relation to the provision of post-secondary education in non-metropolitan areas. At the institutional level various initiatives have been developed and implemented to address perceived needs in relation to post-secondary education in non-metropolitan areas.

Major Policy Directions

The broad directions of post-secondary education policy relevant to non-metropolitan areas can be summarised as:

- priority for regional areas, along with outer metropolitan areas, because of low participation levels and limited access;

- the development of TAFE facilities, in preference to higher education principally because of TAFE's capacity to meet specific needs of nominated disadvantaged groups, and its broader labour market programs;

- where TAFE facilities are located in communities not served by other tertiary education resources, it is expected that those resources will be used to expand higher education opportunities as a deliberate alternative to the building of additional higher education institutions;

- expansion of student residential facilities at regional colleges of advanced education;

- support for a number of study centres in regional areas poorly served by tertiary education and with low participation levels: these centres have been developed as a result of joint Commonwealth-State agreements and advanced education-TAFE co-operation;

- expansion of external studies programs or facilities at particular institutions which has partly been on the basis of the expansion of opportunities for those whose access to tertiary education is difficult because of remoteness;

- a growing recognition that for many rural people, short course adult education and non-award programs delivered locally provide a far more effective and meaningful approach to post-secondary education than lengthy award courses based at an institution.

The recent Department of Primary Industries and Energy discussion paper entitled Education in Rural Australia (1988) was more simplistic and direct when it stated that:

> The debate so far on education and training in non-metropolitan areas has been based on two premises: first that, on equity grounds there is a need to improve the access which people living in these areas have to various educational services and second that agriculture, while important, is a sunset industry. (p.2.)

In April 1986, the Federal Government issued an economic and rural policy statement which sought to address the needs of primary industries and rural and provincial residents. That policy recognised that people in rural and provincial areas have special needs which vary widely. The policy statement highlighted:

- The dramatic increase in the number of rural women in the workforce;

- The low levels of participation of country youth in senior secondary education;

- The narrow range of educational services available to many country residents;

- The growing need for education and training for rural industries and management of those enterprises;

- The need to understand the application of advanced technology to rural industries;

- The availability and cost of educational services in rural areas.

Recent Policy Changes

Policy is never static, new opportunities and constraints necessitate response to changing circumstances. It is now clear that certain initiatives characteristic of higher education and rural policy responses over the last fifteen years are rapidly being phased out. Examples of traditional responses are:

- the development of more autonomous higher education institutions established in non-metropolitan Australia;

- the development of separate TAFE colleges in non-metropolitan areas (although in both the case of TAFE and higher education there is still a need for expansion of some existing facilities and replacement of old and outdated ones, together with a continuing need for more student residential accommodation)

- the expansion of external studies facilities. The number of institutions who provide external studies will become less through amalgamation and phasing out of minor providers and therefore the provision of external studies may be centralised within each state in one or two institutions.

Perhaps the most vigorous advocate of viewing and developing post-secondary education in non-metropolitan areas as a continuum of opportunities rather than as a set of institutions rigidly adhering to sectoral boundaries was the former Chairman of CTEC - Mr Hugh Hudson.

The Hudson Report (1985b), asked 'why do we not see that the development of higher education courses in TAFE Colleges in rural or regional centres can be a means of increasing access for country and isolated students' (p.31). Furthermore he suggested that 'wherever a local community can only sustain a TAFE College, the College Resource Centre should be further developed to enable it to become a Study Centre for all students in that area involved in external studies with other institutions' (p.33). This theme was further developed in the Review of TAFE funding by CTEC (1986b) which recommended that TAFE colleges form the basis of a network of such study centres. Dr. Gregor Ramsey (1987d), former Advanced Education Commissioner for CTEC, supported this concept and also developed the theme of regional targeting in his speech to the Higher Education Planning Forum at Albury - Wodonga, in 1987. He argued that: 'The Commonwealth has a clear policy to redress participation imbalance . . . in country and regional areas where participation is low (p.6). The development of this theme leads to solutions which 'treat regions in terms of their tertiary education needs, rather than on artificial sectoral boundaries' (p.6) and further that the new solutions 'must allow

the regional development to meet the needs of regions effectively' (p.15). Ramsey saw this policy being extended to the point where 'every town with a major TAFE facility will have some higher education courses and appropriate transfer arrangements'. (p.15)

Ramsey went on to comment that (CTEC) believes that if the first of these transitions (home to metropolitan area) can be delayed for at least a year, higher education becomes a much more attractive proposition particularly to those students for whom higher education is not an automatic expectation. A similar situation applies for TAFE students, particularly the scheme of block release for apprenticeships. Stoessinger's (1981) Tasmanian study (p. 49) demonstrated that a system which required large numbers of rural students to leave home at the end of Year 10 is given as a major reason for the Year 11 retention rate for rural students being half the metropolitan rate.

Ramsey (1987d) saw the educational solutions for regions which are not large enough to justify autonomous higher education institutions. He suggested it may be appropriate to:

- treat regions in terms of their tertiary education needs;
- use the existing infrastructure as the base for widened provision;
- develop common first years to facilitate transfers and cross credits;
- develop links with other institutions;
- expect increasing contributions from the local community and industry;
- keep to a minimum the number of administrative and support units to serve the region.

In early 1985 the Australian Education Council (the collective Federal, State and Territory Education Ministers) established a Working Party on the Structure of Post-Secondary Education. The terms of reference included specific allusions to:

- the manner and the extent to which existing inter-sectoral boundaries inhibit the effective and efficient development of post-secondary education; and
- the provision of effective and efficient post-secondary education services to regional centres.

The Working Party's final report (1986) chose not to make recommendations for fundamental change to the existing broad sectoral structure; however, submissions received looked at significant changes which would be required.

The TAFE Council's submission to the Working Party (1985) expressed concern at the lack of credit transfers from TAFE colleges to higher education institutions and the problems concerning articulation between courses. A major problem was seen as lack of information for students (p.2). In turning to non-metropolitan areas the TAFE Council noted that higher education institutions are more centralised and fewer in number and that this presented problems. The solutions proposed by the TAFE Council were to:

- expand the range of professional and para-professional courses in large regional TAFE colleges in areas not adequately served by higher education facilities;
- provide increased student residences in regional TAFE colleges;
- use the network of TAFE institutions as a basis for sharing arrangements.

There were difficulties foreseen in such an approach such as:

- the level of co-operation and participation of State authorities would involve additional resources;
- legislation, staff salaries and conditions and resourcing integrated curriculum development.

The Council saw that there was considerable potential benefit for students and supported a trial and an assessment of such arrangements (p.5).

A significantly innovative concept raised by the TAFE Council was the 'establishment of regional "consortia" of tertiary institutions' (p.4), on a state-wide basis to be extended to an Australia-wide basis in the future. This would enable students commencing in one sector to know with reasonable certainty details on transfer to courses in other sectors.

This is a theme taken up later by the CTEC Working Party on Post-Secondary Rural Education (1988) and briefly referred to in the Green Paper on Higher Education by J.S. Dawkins (1987c).

The Green Paper states:

> Where States and institutions consider that current arrangements should be maintained through small separate colleges, the Government would expect an examination of the possibility of these institutions becoming cross-sectoral in nature as part of the State TAFE system . . .
>
> They should have as broad an educational profile as practicable for an institution of that size.
>
> They should form part of a co-ordinated regional approach to the provision of higher education (p.32).

The CTEC Working Party on Post-Secondary Rural Education.

The establishment of the CTEC Working Party on Post-Secondary Rural Education represented a considerable broadening by Government of the manner in which post-secondary education policy can be developed. In part, it arose from, and was supported by the Department of Primary Industries and Energy who were concerned that a weakness in the provision of post-secondary education in non-metropolitan Australia limited the capacity of our primary industry producers - and those who derive their living servicing them - from fully realising their potential.

This author's involvement as a member of that Working Party has considerably influenced the structure and direction of this particular project, and in part this report is an attempt to build on some of the work of that group. This project seeks to develop further a number of areas that the Working Party explored and addresses a number of deficiencies that the report contained. Those deficiencies arose largely because of the limited timeframe and resource constraints under which it was prepared. Particular themes which the report explored which are developed further in this report include:

- the identification and recognition of regional areas;
- co-operative arrangements between sectors and institutes;
- procedures to increase the relevance of courses to local and regional needs.

The weaknesses in that report which this project has sought to address include:

- the generalised treatment of non-metropolitan Australia as a single entity, and the limited recognition and understanding of the diversity of situations which exist outside the major cities. In particular, the demographic and labour market characteristics which differentiate the major cities from non-metropolitan areas and the differences between non-metropolitan regions are explored;

- the absence of any analysis of the differing characteristics of each state which limit the capacity of the state to implement various recommended approaches. These barriers include such matters as:

  - the distribution of TAFE and advanced education resources;

  - the degree of decentralisation and regionalisation within the state;

  - the physical size of the state, its population and employment distribution;

  - the administrative structures for the planning and development of TAFE and higher education developed by each state;

  - the existence of state boundaries which cut through areas which relate to each other;

- the continuing confusion in terminology which sees the use of the word 'rural' to mean both everything outside capital cities and to encompass everything associated with agricultural or pastoral pursuits. With this confusion comes the failure to comprehend that:

  - the majority of people who live in non-metropolitan Australia are urban dwellers and do not directly derive their income from primary production and a large proportion have no direct connection with rural pursuits, but of course their economic well-being is closely related to the health of their region's rural economy;

  - non-metropolitan Australia has reversed the long period of outward migration to the cities which characterised the 100 years preceding the early 1970s. Not only is non-metropolitan Australia growing faster than the capital cities but there is a net outflow of persons from the largest cities to non-metropolitan areas.

Despite my contention that the CTEC (1988) Working Party Report has serious deficiencies it does represent the first major attempt at Federal level to establish the significant differences which exist between metropolitan and non-metropolitan areas. It draws major conclusions regarding priority actions and recommends strategies accordingly. The value of the exercise will only be determined when and if implementation of the recommendation is effected.

The Working Party's findings were that:

> 3.3 the priority post-secondary educational needs for rural Australians are:
>
> a) information to create a greater awareness of the availability of educational provision and its benefits;
>
> b) short courses applicable to local requirements to be delivered by informal networks as well as by post-secondary institutions;
>
> c) increased provision and better co-ordination of distance education, and local support for distance education students;
>
> d) better access to post-secondary education for school leavers, including flexible study modes and entry levels;
>
> e) a regional co-operative approach between institutions and sectors.
>
> If these needs are addressed the negative attitude many rural people have towards post-secondary education should be overcome (p.12).

The Working Party concluded that the major problem with rural education is that:

> 4.3 . . . metropolitan structures and approaches have been, and continue to be, adopted to address rural educational needs when they may not be the most appropriate response. It sees the gap between rural and metropolitan communities widening and considers that much more needs to be done to change metropolitan designed education structures to make them work for rural Australia. This does not mean that existing institutions should be by-passed; rather,

there is a need to strengthen, modify and support them in the task they have of meeting the educational needs of rural Australians.

4.4 The "regional" approach to rural education . . . is considered essential in overcoming this major problem. The total educational resources which may be applied to a region should be an integrated whole with decisions about its use being made in a co-ordinating way" (p.16).

Two key recommendations of the Working Party's Report which are relevant to this project concerned cross-sectoral arrangements and a regional approach.

Regional Approach

5.3 The Working Party was of the opinion that the structure for educational delivery in rural Australia has to this point been generally based on the metropolitan model which is inappropriate for rural Australia, particularly in the case of sparsely populated areas. For example, the metropolitan divisions of primary and secondary, TAFE, university and advanced education segment the educational task to a point where it is unattractive to rural people and highly expensive to operate. If to this is added separate decision-making structures, often requiring final approval in the capital city, and courses designed for a metropolitan clientele it is no wonder participation is low.

5.4 In an attempt to overcome some of these difficulties the Working Party believes that all post-secondary education institutions in regional areas should adopt a highly regional focus with all institutions within a defined region co-operating closely. If this is done there

should be significant improvements in educational delivery. The Working Party considers it essential that institutions in a region should seek regional solutions to their regional problems. **The Working Party recommends** that:

. the Department of Employment, Education and Training (DEET), in conjunction with State authorities, identify regions in which co-operative arrangements are to operate and that such arrangements should be taken into account when resource agreements or educational profiles are being determined;

- in determining course offerings educational institutions should give high priority to those of direct relevance to the local economy and local needs; the Commonwealth should include such course areas among those to which emphasis is given for the allocation of increased intakes in future years and should also be considered when resource agreements or educational profiles are being determined (p.18).

Cross-Sectoral Arrangements

5.5 The Working Party considers that to make the most efficient use of educational resources and expertise in rural areas, cross-sectoral arrangements should be encouraged to enable a range of courses to be offered at all levels appropriate to needs. **It recommends that:**

- a range of post-secondary courses relevant to the particular needs of rural areas be available through the co-ordinated offerings of specialist agricultural colleges, regional higher education institutions and local TAFE providers, involving where necessary the development of cross-sectoral arrangements;

- DEET, in consultation with the Department of Primary Industries and Energy, negotiate with the individual States where necessary to facilitate the further development of plans for such changes (p.10).

Recent Ministerial Policy

The Ministerial Statement by John Dawkins (1987a) The Challenge for Higher Education in Australia indicated that the government's prime concerns were:

- the rate of retention to the end of secondary education;

- the level of youth participation in higher education;

- the proportion of the workforce holding post-school qualifications (p.5).

Dawkins (1987b) did not go on to define the geographical dimensions of these patterns. Such an analysis would certainly indicate significant disadvantages experienced by non-metropolitan Australia. Clearly if these concerns are translated into specific strategies they will need to be applied much more vigorously in non-metropolitan areas.

Dawkins (1987b) noted in his guidelines to CTEC on Higher Education Plans for 1988 that there is a:

> . . . continuing need for improved access to higher education by those who are disadvantaged by geographical or socio-economic factors . . . (Participation) rates in these areas remain below the national average and there needs to be continued growth in targeted institutions (p.3-4).

Continuing Recent Debate

The Department of Primary Industries and Energy's discussion paper, Education in Rural Australia (1988) proposed a number of measures to assist regional areas including:

- The provision of education and training in non-metropolitan Australia will require a regional approach involving the co-operation of local industries, the community and all three levels of Government as well as the various educational sectors.

- Better information is needed on the skills and labour market needs of non-metropolitan industries and communities.

- People throughout non-metropolitan Australia need ready access to information in the education and training opportunities and financial support available for non-metropolitan students.

- Post secondary resource agreements should encourage educators to respond to the needs of the whole country.

- Recognising the greater resource requirements of non metropolitan programs. (p.3-6).

There has probably never been such an extensive and intensive debate about the nature of and requirements for the provision of training and post-secondary education in Australia as is currently occurring in Australia. As well as the Commonwealth making significant changes to the existing organisational structures they have:

- announced the end of the binary system and the possible commencement of a massive round of amalgamations of institutions; and

- sought to remove much of the distinction between TAFE and the higher education system, through Associate Diplomas, and articulation between courses.

At the same time there is growing recognition of the importance and need for adult education in the achievement of economic and social policies.

This climate of debate and change has prompted moves within a number of states to address long standing issues. The TAFE system in a number of states has seen significant changes in emphasis and in the structures which support them, most notable examples are in Western Australia, South Australia, Queensland and Victoria. The ACTU (1987) document Australia Reconstructed has also sought to focus attention on the respective roles and responsibilities of employers, employees and institutions in the education and training process and in addressing the changing needs of the workforce and the economy. All these changes and debates are taking place within an unprecedented climate of concern by government and the community that too small a proportion of the population is completing secondary school, undertaking tertiary courses and being retrained.

The Commonwealth Green Paper on Higher Education

It is also within this context that the Commonwealth Government's Green Paper on higher education has been released. The paper points out that there are up to 100,000 TAFE students enrolled in higher education programs and although there has been very little discussion of TAFE's role in the provision of post-secondary education in non-metropolitan areas its contribution could be both significant and substantial. Furthermore the Green Paper states that one of the three principles to guide the development of institutions to promote the effective expansion of the higher education system is that they should 'form part of a coordinated regional approach to the provision of higher education'. (p.33).

In essence this is similar to the regional consortia proposed by the TAFE Council and to the regional approach recommended by CTEC Working Party. Perhaps of even greater significance as it relates to access to post-secondary education opportunities for non-metropolitan residents is the likely effect of proposed mergers, reduction in the number of external studies providers and and the possible increase of fees.

Despite recent concern expressed in policy documents for rural areas and the references to the necessity for a new focus on rural and provincial needs, there is very little in the Green Paper which specifically addresses regional institutions and the problems faced by non-metropolitan residents. In 87 pages there are only six minor references which address the specific needs of 30% of Australians for whom on-campus participation in the tertiary system, and particularly the binary system without leaving home, is restricted to one or at best two institutions.

The Implications of Current Policy for Non-Metropolitan Areas

Clearly there is danger that many of our policy makers are still operating in an environment which assumes that the trends which so clearly characterised the first three-quarters of this century are still relevant. Policies which continue to plan and allocate resources on the basis that non-metropolitan areas are of declining importance are no longer tenable.

Those in Australian education and training circles who have evinced a concern for issues of educational access and equity have seen 'non-metropolitan, rural, regional, remote or isolated areas' labelled in both Commonwealth and State documents as disadvantaged, requiring therefore, specific measures to redress their problems. However, the term disadvantaged has been so widely applied that often non-metropolitan areas have become merely a sub-set of the label disadvantaged. By grouping all non-metropolitan areas together the differences between areas are blurred and the distinct advantages many such areas have are ignored.

The Absence of Policy for Non-Metropolitan Areas

The Report of the Committee of Inquiry into Labour Market Programs (1985), commonly referred to as the Kirby Report, recognised the problems for persons in rural Australia and indicated that in relation to many aspects of education and training programs they can be classified as disadvantaged. The Report offers little specific advice on what to do, and simply states:

> . . . currently there are no labour market programs which target on a regional basis. We believe that this is an important dimension for labour market programs. (p.96)

If we are to have clear policy then we need a comprehensive analysis of the social and economic indicators.

As mentioned previously the most significant and comprehensive study undertaken recently in Australia is Powell's Rural Labour Markets in Australia published by the Bureau of Labour Market Research (1985). Despite its title, this study considered all aspects of non-metropolitan Australia. It has highlighted the fact that all major studies have failed to relate an analysis of workforce training provision in non-metropolitan Australia to a labour market analysis. Such an emphasis is needed within the context of the significant changes which have taken place in the growth, distribution and characteristics of Australia's non-metropolitan population. There is currently a dearth of information for training and education authorities on the supply and demand for different skills both now and in the future in non-metropolitan Australia. The conclusion has been drawn in that study, after reviewing all available research including

work done in TAFE, that still "comparatively little is known about training needs in rural areas" (p. 81). Probably the Victorian TAFE Board came closest to dealing with this topic in its research report Employment and Occupational Trends in Victoria 1985-2000 (1985) which attempted to analyse projected occupational trends by region.

By comparison with metropolitan areas non-metropolitan Australia exhibits proportionally higher concentrations of the following demographic groupings identified as disadvantaged in relation to education and training; Aborigines, unemployed, early school leavers, persons with no post-school educational or training qualifications and low income earners. The geographical distribution of these groups is often concentrated in those parts of Australia most distant from the metropolitan areas and for which employment prospects are limited. Further, in non-metropolitan areas the participation levels in post-secondary education (particularly in vocational programs) of residents belonging to disadvantaged groups are below national averages. These factors are significant for post-secondary education's overall effort and the priorities given to particular programs. However they have greater relevance for the TAFE sector when it is realised that it is through TAFE that the government has sought to pursue social and economic objectives. An understanding and an assessment of the implications of the changes which are affecting the population and labour market structure of non-metropolitan Australia is obviously a major input to future policy development and resource allocation.

The CTEC Review of TAFE Funding (1986b), the Hudson Report (1985b), the CTEC review of higher education (1986a) and the latest CTEC (1987b) triennium reports have all highlighted the relative disadvantages experienced by non-metropolitan residents in gaining access to post-secondary education and training. Although each report has proposed arrangements to address the disadvantages, all reports have been short on specific details.

It is suggested that there has been limited research in Australia on the specific needs for post-secondary education and training programs for non-metropolitan areas. Much of the research on this issue has treated non-metropolitan areas as though they are an undifferentiated component of the national or state level. Where an attempt has been made to examine non-metropolitan Australia it is often treated as a homogeneous area. The recent research which has been undertaken has indicated that such a basis for analysis is inappropriate. Education and training programs and resource allocations made on such a basis will not be as effective as decisions based on a thorough understanding of the key demographic and labour market changes in the various regions of non-metropolitan Australia.

6. INITIATIVES WHICH HAVE BEEN TAKEN TO EXPAND THE PROVISION OF POST-SECONDARY EDUCATION IN NON-METROPOLITAN AUSTRALIA

This section of the report does not seek to document all initiatives which have been taken to expand the provision of post-secondary education in non-metropolitan Australia, rather it provides selected examples.

The Classification of Initiatives

Whilst there are numerous instances of educational initiatives which have been undertaken, there are eight broad types which have proved to be significant.

- The delivery of higher education programs through TAFE colleges.
- The establishment of a resource or study facility in an institution as an outreach centre for persons engaged in post-secondary courses.
- The establishment of colleges which have a cross-sectoral focus (senior secondary, TAFE and higher education).
- The establishment of institutes of tertiary education which involve some elements of all of the first three.
- The growth of community-based adult education and the provision of 'non-formal' short courses.
- The establishment of multi-campus institutions over a regional area.
- The development of mobile learning facilities.
- The establishment at the regional level of an integrated approach to the delivery of post-secondary education services.

Many of these initiatives have been greatly assisted by the use of appropriate technology.

Western Australia As a Case Study

Western Australia provides a valuable case study of these initiatives and in many respects represents the State which has made the most concerted and comprehensive attempt to address the wider post-secondary education needs of non-metropolitan

residents given its geographic size and population distribution. Significantly it was not feasible to argue for a duplication of tertiary education facilities within the State. The existing circumstances demanded a new strategy, one which did not emanate from sectoral and institutional considerations although in some of the strategies these appear to have emerged.

The Western Australia provision of post-secondary education and training is characterised by:

- a network of TAFE colleges and centres;
- independent post-secondary regional colleges at Port Hedland, Karratha and Kalgoorlie (an outstanding example of a government taking an initiative to address a particular problem);
- campuses and rural centres of metropolitan based higher education institutions at locations such as Muresk, Newman, Bunbury, Collie, Broome, Kalgoorlie, Kununurra and Carnarvon;
- a campus of the Western Australian College of Advanced Education campus at Bunbury funded entirely by the state;
- metropolitan institutions contracting the first year of courses to country TAFE colleges at Albany, Bunbury and Geraldton;
- the Western Australia Post-Secondary Education Commission conducting reviews of selected rural centres;
- the development of a well respected set of TAFE mobile facilities.

What emerges from the Western Australia examplar is that to a significant extent, a number of authorities and institutions have taken an impartial and objective look at non-metropolitan needs and let the requirements determine the response. The result is a series of initiatives which are relevant to specific needs in various localities.

It is a theme pursued vigorously by Atkinson (1987) in his examination of the practice of contracting in Western Australia and from which he envisages wider implications and changes. He writes:

> The situation in Western Australia is such that tertiary education resources provided in non-metropolitan communities need to be pooled across all three sectors. Indeed, the integration of contracting study centres, cross-crediting and distance

> education represent the most important Western Australian response to CTEC guidelines on the provision of external higher education (p.61-2).

He concludes:

> The demands for improved education in the smaller, underserved, non-metropolitan communities of Australia may become one of the more potent catalysts facilitating inter-sectoral integration (p.62).

It is perhaps in the area of contracting that Western Australia has shown the way with the most significant example being set by the Great Southern Regional College of TAFE at Albany. With a relatively small population base this College has managed over a six year period to establish contractual arrangements with three Perth-based higher education institutions and to offer the first year of ten courses using local staff and resources. Local studies by Davy (1986) and Woods (1986) showed, that prior to this arrangement the percentage of persons from the local population enrolling in the first year of courses was consistently less than half the rate for the metropolitan area whilst the rate for school leavers was about 60%. With the additional financial cost for supporting a student at a Perth institution being $5,000 - $8,000 the low participation levels were understandable. Moreover, a significant proportion of families (about 20%) were giving as their reason for migration to Perth increased access to higher education.

Davy (1986) sees a number of advantages flowing to a wide range of educational users in Albany from the new contractual arrangements. These include:

a) Enabling students to attend who could not otherwise afford to study in Perth;

b) Allowing school leavers to retain their home environment when they enter a tertiary study program;

c) Providing an opportunity for part-time students to attend classes in preference to external study;

d) Permitting more effective use of capital resources including the computer centre and learning resources centre by allowing them to use TAFE facilities;

e) Providing educational continuity with existing TAFE diploma courses and secondary education.

Furthermore, the economy of the region would benefit if the large number of students currently studying in the metropolitan area were able to remain in the region.

Whilst the cost to the institutions and the state system of such arrangements are greater than the "do nothing" option, the social and economic benefits to communities and individuals are significant. Woods (1986) concluded that "the contracting of higher education courses by a regional TAFE College is seen to be a very pragmatic and cost efficient way of providing a wider educational range of courses". (p.5-6)

Walsh (1986) in his statewide study of the practice of contracting in Western Australia envisages some 500 students enrolled by this method in 1991. He sees the advantages as:

1. Students remain at home longer - financial savings.

2. Better use of existing capital facilities.

3. Assisting the transition from TAFE to higher education.

4. Develops and consolidates TAFE facilities.

5. Development of the TAFE college as a defacto study centre.

6. Enhancement of the TAFE college's status in the eyes of the community.

7. Classes are small and the environment is much more supportive.

8. Increasing higher education participation rates.

9. Reinforces argument for student residential accommodation.

10. The motivation of staff is enhanced.

Whilst Walsh recognises a large number of practical problems he argues that they can all be overcome if there is goodwill on all sides. However, he concludes that "the initiative for contracting rests with the regional college". (p.18)

In another major initiative the Western Australian Interim Council on Productivity and Training (1988) has proposed a State Employment and Skills Development Authority in recognition that:

> There is a need to improve the delivery of labour market services to regions and local areas, integrate these services with regional and industry assistance and development programs and the skill requirements of non employment opportunities, and encourage local participation in policy development and program implementation. (p.6)

It is against this background that Western Australia's State employment and training system has taken a most innovative approach. This approach has the great virtue for non-metropolitan areas that it recognises the labour market differences between regions and the need to ensure that strategies are developed which have strong local involvement. The recently announced system proposes to create Regional Integrated Labour Market Services (RILMS).

This program will have the following aims:

- to integrate both state and federal services currently being offered in regions;
- to build on these services to provide a process of skills auditing of the unemployed and the employed;
- to improve the matching process between the employed and unemployed, and jobs vacancies and opportunities;
- to provide training where a skills audit reveals deficiencies;
- to provide counselling and support where necessary;
- to generate employment where employment is not currently available; and
- to create linkages with industry development programs.

The proposed establishment of RILMS and its trialling in three regions - two of them in non-metropolitan areas, is a recognition by the Western Australian government that the following problems exist with the current provision of labour market services in Western Australia:

- little has been done to target labour market services to the regional or local level despite evidence that labour market problems are often highly regionalised in Australia;
- confusion and wasteful duplication occurs as State and Federal government services are not properly co-ordinated or integrated;
- regional labour market services are currently provided without any prior assessment as to whether these services are appropriate to the needs of the area. (Western Australian Department of Employment and Training 1988, p.iv).

THE RILMS CONCEPT

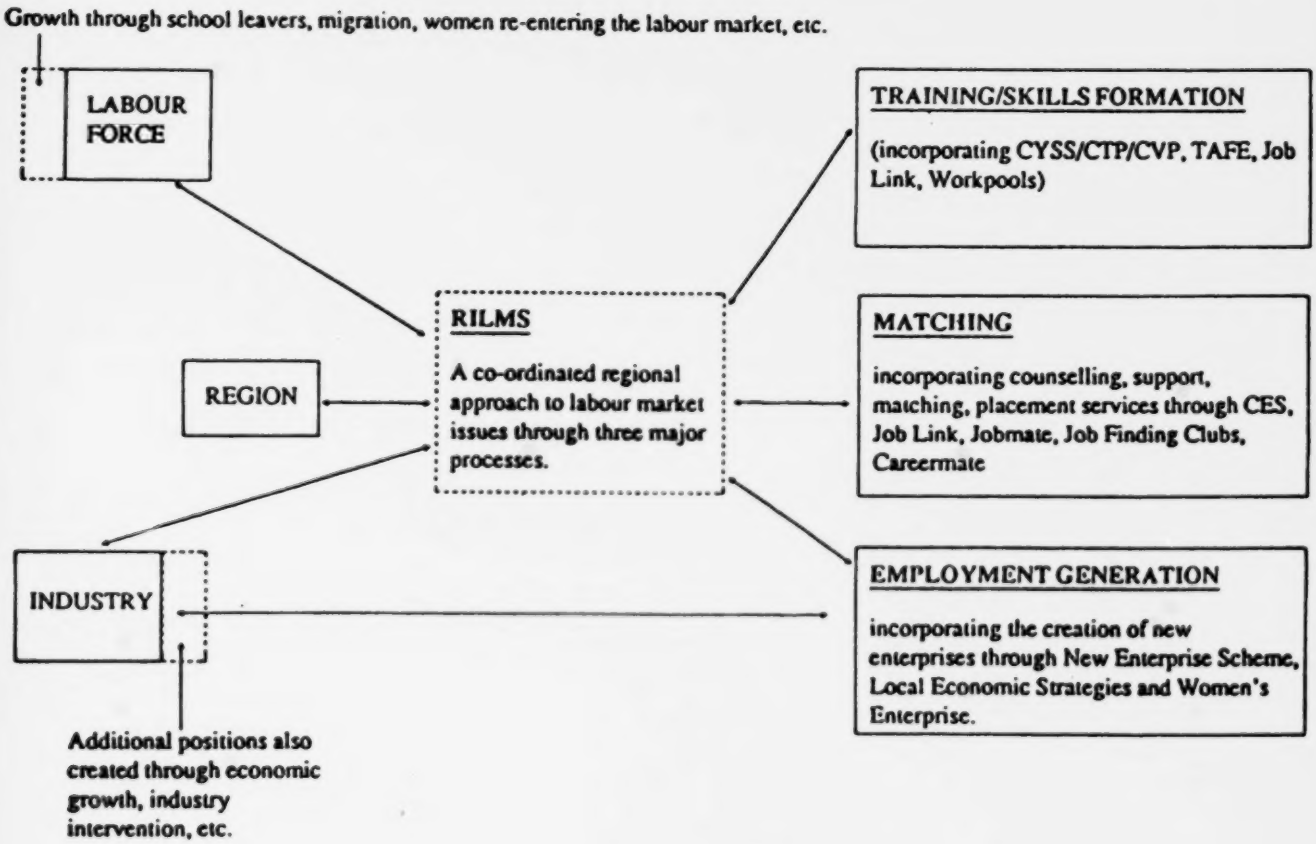
Growth through school leavers, migration, women re-entering the labour market, etc.
LABOUR FORCE
REGION
INDUSTRY
RILMS
A co-ordinated regional approach to labour market issues through three major processes.
TRAINING/SKILLS FORMATION
(incorporating CYSS/CTP/CVP, TAFE, Job Link, Workpools)
MATCHING
incorporating counselling, support, matching, placement services through CES, Job Link, Jobmate, Job Finding Clubs, Careermate
EMPLOYMENT GENERATION
incorporating the creation of new enterprises through New Enterprise Scheme, Local Economic Strategies and Women's Enterprise.
Additional positions also created through economic growth, industry intervention, etc.

FIGURE 2

The Western Australian Department of Employment and Training's report (1988) setting out the RILMS concept recognises that:

> a key solution to these problems is to improve the efficiency of the matching process between the attributes needed by industry and those available in the labour force and to tie this process into the provision of training. (p.iv).

The preceding diagram from that report sets out the major components of the concept. Clearly the TAFE college(s) within each region plays a key role in training skills formation. However, and most importantly, they must be responsive to needs and requirements identified by other groups at the statewide level, such as industry, whilst the regional level will provide a perspective on their own needs.

Study centres.

In the recent review of study centres by Northcott and Shapcott (1986) who examined the provision across Australia, their overall finding was that there is no one single model appropriate for student support or student services throughout Australia. The term 'study centre' is really only an umbrella term which 'ignores the diversity of provision and practice which characterises localised support services in Australia' (p. 19). Northcott and Shapcott describe the pattern as a patchwork rather than a network and they find considerable variation between States. Much of the variation is, according to them, due to the teaching philosophies of providers which emphasise residential attendance and direct services. Northcott and Shapcott give high praise to the centres at Burnie and Darwin, attributing their success to a community rather than an institutional orientation. (p.21). The Western Australian examples they observe illustrate 'a high degree of cooperation between institutions, non-duplication of courses and the practice of contracting'. (p.39).

The CTEC established a Standing Committee on External Studies which in its report (included in the CTEC 1988-90 triennium statement), (1987b) set out what it saw as the requirements for facilities and organisation of a study centre. The Standing Committee saw a study centre being able to provide the following five functions:

- pre-enrolment information and counselling;
- in-course advice on study methods, institutional procedures and contacts;

- facilities for telecommunication including telephone tutorials;

- computer access to data bases (such as library catalogues) and to institutions for computer-based education;

- a meeting place for students.

Northcott and Shapcott (1986) in their examination of student support centres indentified four types:

Access Centre: basically a contact point for students, with a minimum of services.

Resource Centre: combines the access centre facilities with a limited range of telecommunications and tutorial supports; possibly located in a post-secondary education facility.

Study Centre: provides a full range of services and facilities to be located in an educational institution.

Regional Outreach Centre: these extend the role of the other centres and include, administrative functions, full-time staffing with tertiary institution personnel, a high degree of independence in their capacity to negotiate with a wide range of institutions.

External studies provide some non-metropolitan residents with an appropriate and convenient form of access to tertiary study. Recent research (Ashenden 1987, Northcott and Shapcott 1986) however, shows that the widespread offerings of external study providers have not addressed equity issues. Very large proportions of external students are metropolitan based and of those from the country the vast majority are re-entering tertiary study in order to upgrade existing qualifications. The external studies system of TAFE and higher education offer only limited opportunities to non-metropolitan residents who seek to enter tertiary education for the first time. The concerted endeavours at Commonwealth and State levels to rationalise the number of external providers in each state to one or at the most two may further limit non-metropolitan options. There have been strong advantages in competition between providers for students:

- in seeking students institutions have often been innovative in services offered and have provided measures of support which may not have been provided if one institution had a monopoly.

Identification of Priority Regions.

A comprehensive study aimed at identifying priority areas and regions across Australia for Commonwealth and State support is beyond the ambit of this project, although the the statistical tables in the Appendices clearly indicate some areas of remarkable growth and development.

By any analysis Far North Queensland with its major regional centre of Cairns provides an interesting case study for promoting a regional target approach. Far North Queensland is experiencing an exceptional and sustained population and economic growth based on tourism (domestic and overseas), primary industries agriculture and fishing and minerals. Currently it has a total regional population of about 180,000. Projected growth to the year 2015 will see Cairns as the seventh largest city in Australia behind the five largest capital cities and Newcastle, and ahead of Canberra and Hobart. Cairns is, without a doubt the largest most remote city/region without a higher education institution.

The need in Cairns for higher education has resulted in the establishment of a campus of James Cook University. In 1985 the CTEC provided funding for 30 places on the basis of a feeder campus to James Cook University 350km away, despite the analysis which showed that 60% of Far North Queensland students who go on to higher education don't go to James Cook University. In order to develop the Campus, the University worked closely with the Cairns College of TAFE and on joint use library and classrooms and some TAFE teachers delivering programs. In the meantime the Cairns community have begun the task of raising the $6.5m for the first stage development of the University Campus. This target is already over subscribed. The lesson from Cairns is simple - meeting the need for locally delivered higher education simply would not have been possible if the University hadn't worked closely with the TAFE College.

The Cairns example indicates where an institution (James Cook University) was prepared to identify and act upon an obvious priority. The Tasmanian State Institute of Technology is clearly an example of another. In relation to the north west of the state it has adopted the following as Institute policy:

> Council and the Institute have given, and will continue to give, very high priority to the provision of higher education to residents of the North West Coast of Tasmania. While offering every encouragement to the Institute to develop educational activities and facilities in the North West Coast, Council has been somewhat disappointed at the relative lack of support from CTEC for its efforts over the past five years. (Tasmanian State Institute of Technology 1986, p.39).

This policy has been supported with the establishment of study centres and flexible program arrangements by the TSIT.

Concern about the ultimate fate of small institutions servicing regional areas has been raised by a number of persons associated with those institutions. One of the recent and most dramatic responses was from Professor Skilbeck, Vice Chancellor of Deakin

University who circulated a discussion paper in rural Victoria prior to the release of the Dawkins Green Paper on higher education.

The Skilbeck Paper (1987) sought to build on a number of statements already made by Minister Dawkins and pre-empted much of the thrust of the Green Paper. It proposed:

- coordination of institutions, programs and resources based on new cooperative arrangements.

Significantly it included within its scope, Deakin University, three colleges of advanced education, five agricultural colleges and nine TAFE colleges.

The objective of the paper and proposals was to provide a regional response to a range of regional issues. It contended that regional areas were not receiving a fair share of resources: it proposed to 'reverse the trend of recent years whereby resources for tertiary education have declined for country areas relative to metropolitan institutions'. (p.2). The paper strongly advocated (p.2) a regional approach although it agreed that there existed no clear-cut definition of a region. Skilbeck saw the advantages of a regional approach being to:

- ensure greater cooperation in policy and provision;
- strengthen teaching and research;
- achieve economies of scale;
- provide country Victoria with higher education opportunities related to local needs by expanding links with TAFE colleges.

The major concept developed within the paper was the establishment of a single, federal type university 'that retains the distinctive qualities of member colleges whilst operating under a single academic, administrative and financial umbrella'. (p.18). This notion was later raised in the Green Paper (1987): in discussion of alternatives to amalgamation, a proposal was put forward to establish 'formal collegiate arrangements, networking of non-metropolitan colleges into larger institutions and joint administrative arrangements'. (p.32).

Interesting developments have recently taken place in the social and community services area in Victoria where there has been long-standing concern about chronic shortages in many country areas of trained social and welfare workers. This has been in many cases attributed to the inability of country based staff to gain access to further studies to upgrade qualifications.

The situation with social and welfare workers is similar to that experienced by other groups, specific examples are nurses, army personnel and workers in the mining industry. These groups often require portability in course credentials and attendance via external means. Flexibility in course provision and recognition of credentials is demonstrated by the example of the Tasmanian State Institute of Technology on the NW coast whereby the Institute recognises subjects undertaken by students at other institutions e.g. Deakin University.

The Charateristics of Successful Initiatives

Based on the analysis of the case studies reported here and documented in research and by field visits, the following factors have been identified as characterising successful initiatives and innovative practices.

1. There has been strong support for the development of the issue at local level and in a manner best suited to local needs from either the federal or state authority.

2. There has been no attempt to impose barriers on the initiative, either by defining its operational area or region or by imposing sectoral boundaries on its application.

3. The problem has been recognised as a matter relating to a particular geographical area and not in terms of its being a problem relating to an institution or a sector.

4. The solutions, whilst innovative are not out of proportion to the nature of the problem or relative size of the population being addressed.

5. The solutions are derived from genuine community need and not from a perception of what would be good for the community. No initiative or solution will be acceptable or practical if it is beyond the community's expectation or need.

6. The developmental period for many initiatives is often long, as various ideas and options are explored. During this period however, the original aims or objectives to be met by the initiative should not be disregarded or neglected.

7. Whilst institutions may play a leading role in the design, development and implementation of the initiative, it is important to ensure a community input, thereby guaranteeing community involvement and commitment to the initiative.

In non-metropolitan communities attempts to change the nature of educational provision are treated with great suspicion and concern. Amalgamation of institutions evokes images of loss of faculties and facilities, particularly to rival areas and centres. Past experience has taught the lesson that once removed, there is rarely a replacement. There is a different consciousness in the non-metropolitan community which must be respected. Once it is recognised and organisations work with it, it becomes a strong ally.

7. FACTORS LIMITING AN EXPANSION IN ACCESS TO POST-SECONDARY EDUCATION FOR NON-METROPOLITAN AUSTRALIA

The major factors in limiting an expansion in the provision of, and access to, post-secondary education in non-metropolitan Australia are:

1. The absence of a clearly articulated set of policies at the Federal and State levels which state priorities in terms of client groups, geographical areas and expected outcomes which are derived from identified and documented and non-metropolitan needs.

2. The divisions between Federal and State control and resourcing with respect to different sectors of post-secondary education.

3. The divisions within States between higher education and TAFE, and between TAFE colleges, adult education and secondary education.

4. The divisions between institutions and sectors at the local and regional level and the focus placed on their own (not necessarily local) students to the exclusion of their equally important obligations to their community.

5. The absence at Federal and State level of processes which ensure that information and analysis relating to non-metropolitan demographic and labour market changes influences decision-making and resource allocation.

6. The lack of local and regional autonomy for institutions, particularly TAFE colleges to devise initiatives and solutions themselves, and the barriers to those initiatives which are often created by the centralisation of control.

7. The imposition of single models of provision across a whole State regardless of the nature and requirements of various areas.

The most recent observations on the problems which have arisen with the various control mechanisms in Australia have been made in the Dawkins Green Paper (1987).

> A pre-requisite to effective management is a clear definition of roles and responsibilities. There are important issues to be resolved regarding the appropriate division of responsibility between the Commonwealth, State/Territory Governments and higher education institutions themselves. (p.47)

This comment is just as applicable to the TAFE system itself.

The Failure to Address Geographical Areas and Take a Comprehensive Approach

Even though there have been developments which have sought to address specific geographical areas, CTEC has continued to pursue a policy of limited geographical targeting. Such targeting has been generally restricted to the State level e.g. Queensland or Tasmania (because of low overall participation). CTEC has not carried out a comprehensive study on the regional variations associated with supply and demand. Generally, broad non-metropolitan areas have been treated as largely homogeneous areas. There has also been little quantitative analysis below the state level on indicators relevant to education and training needs and provision.

If this approach characterised the national level one could expect that at the State level there would be a comprehensive examination of needs and provision in relation to non-metropolitan areas generally and regions specifically. An overview of the scene produces a very inconsistent picture. The principal determinant of that picture is the different structural and administrative arrangements adopted by each State to:

- administer and co-ordinate TAFE (some opting for a separate authority, others operating TAFE as a division of their education department);

- plan and co-ordinate higher education (each state having different degrees of control and central direction;

- provide for tertiary education at the institutional level. The larger states with a myriad of institutions contrast with the smaller states, particularly in the provision of advanced education. Within the TAFE sector significantly different approaches have been developed, the greatest contrast in non-metropolitan areas being between NSW and Victoria, where the former has opted for 73 colleges outside metropolitan Sydney: Victoria has only 11 non-metropolitan colleges. Consequently there are vast differences in the size of each state's colleges.

Numerous examples can be taken from each state detailing significant developments which have occurred between sectors, institutions and at the regional level, but in themselves they do not promote change. The sectoral boundaries and the institutional territories are still well entrenched. The post-secondary education system is still a long way from the situation where it offers a continuum of opportunities and where the needs of the various sectors and institutions are secondary to a co-ordinated provision of education determined by regional needs. Whilst a limited degree of change has been occurring in the directions pursued by the Commonwealth, other changes have taken place which in part limit and threaten the scope of such change. Rationalisation of programs particularly in training areas where curriculum and technological change require more expensive teaching facilities and in some cases lower occupational demand due to structural changes in the economy, have all seen the number of locations where training is available considerably reduced in the last decade. This factor is having considerable impact upon rural Victoria and New South Wales where an extensive network of TAFE training facilities have existed for many years.

Quite naturally the debate has become territorial in many circles and focused on the new order of things. In many instances it could be seriously questioned whether the present and future clients - who are after all, the reason for the existence of the institutions and their supporting central administrations - have been overlooked. The focus appears to be on the process and substance of change rather than on the reason - the intended outcome for the community.

Despite the existence of peak organisations designed to co-ordinate, or at least ensure co-operative development between the sectors, the examples of initiatives which have been implemented are inconsistent and do not in any way represent a concerted plan. Initiatives which have occurred in non-metropolitan areas have generally come from local efforts or as a result of specific Commonwealth intervention. Although all too often the Commonwealth rhetoric has not been followed up by the appropriate injection of funds. The last set of CTEC triennial reports recommended that $3m be earmarked for learning resource centres in TAFE colleges in non-metropolitan areas to facilitate the establishment of study centres for students from all three tertiary sectors. The Dawkins reply praised the concept but indicated that there were no Commonwealth funds for it.

As for a lack of effective action in post-secondary initiatives at state level, it appears that the various coordinating bodies should be held largely responsible. The reality is that with the exception of the Ministers for Education there is no other body at the State level which is so clearly charged with responsibility. The Victorian Post-Secondary Education

Commission, for example, has a very broad charter which includes a specific requirement to ensure post-secondary education opportunities for provincial cities and towns and rural areas. The only instance however, of the Commission actively pursuing its charter has been its strong support for building student residential accommodation at regional colleges of advanced education.

The Inherent Educational Disadvantages of Non-Metropolitan Australia

Completion of Year 12 (although not necessarily a prerequisite for entry to post-secondary education) is a major indicator of educational advantage. A recent study by the Department of Employment, Education and Training (1987a) has clearly demonstrated the lower levels of Year 12 completion for country students as against metropolitan students. This generalisation the authors believe is too simplistic a view. The study concludes that:

> The problem of increasing educational participation in rural regions, for example, has long troubled educators and administrators. But the very broadness of the terms in which the problem is identified mitigates against its solution. 'Rural Australia' is extremely varied, whether the criteria one uses are demographic, social or economic. . . .Indeed, expressing the matter in terms of the 'the problem of rural education', as is frequently done, may blind us to the fact that different regions may have different problems (some, for that matter, may well have no problems at all). In other words, what is needed for an adequate response to the educational needs of rural Australia, in the first instance, is the breaking down of the concept of 'rural Australia' into more manageable units, units which will allow us, for example, to relate patterns of completion of secondary schooling not just to generalisations concerning the effects of 'isolation', but also information concerning social and demographic characteristics, the nature of the local economy and the job opportunities open to young people within their region. (p.2)

One of the most recent studies of the tertiary education needs in a non-metropolitan region in Australia was conducted by the Tertiary Education Authority of South Australia and relates to the Upper Spencer Gulf Region (1987b).

The study proposed a series of actions to increase participation particularly in higher education. It found that these strategies required close co-operation with the relevant TAFE authorities: TAFE is able to provide an important starting point for entry to higher education whilst transfer arrangements

between TAFE to higher education courses was significant. The study saw the need to establish a 'Tertiary Education Information Centre/Office' where information and possible counselling on all aspects of tertiary education could be gained. The concept and potential of study centres in assisting students was also seen as a priority.

In respect to these matters the report concluded that there was a high level of ignorance about the provision of external studies in tertiary education, and that there was a commonly felt right within the community for an attachment to a local study base for any students in the area attending any tertiary institution by any external mode.

Concern over such issues as these has prompted the Victorian Ministry of Education to form a Working Party on the Delivery of Education and Training in the Rural Areas of the State with representatives from each of the education sectors and the Office of Rural Affairs. The Working Party has been charged to:

- identify existing arrangements that are seen to have successfully maintained education and training options for rural people;

- explore the potential for the spread of these successful delivery arrangements, including cross-sectoral arrangements;

- suggest alternative approaches to delivery that would improve rural access.

The findings of this project indicate that whilst there are some examples of progress in these areas in Victoria it would probably be more fruitful for the Victorian Working Party to examine what has been done in other States.

Recent studies by and sponsored by the Tertiary Education Authority of South Australia have shown that, in almost all cases the application and enrolment rates of non-metropolitan segments of the population in courses at universities and colleges of advanced education are much lower than for the same segment of the population in the metropolitan area. It is a finding confirmed by studies in other States. Similar studies on retention to Year 11 and 12 have indicated similar patterns, with the most dramatic examples coming from Tasmania where many country students are forced to leave home in order to continue schooling beyond year 10. Unfortunately, comparable data for the TAFE scene is inconclusive. Examination of the TAFE environment is made more difficult by the variety of course lengths, the high drop-out rate in many courses, the lack of comprehensive data systems in some states and institutions and

the problems caused by a policy which assumes equal participation rates. The work carried out to date generally indicates, (as might be expected), that it is availability and proximity which determines participation. There is a latent demand in all areas for a comprehensive range of programs: however, limitations on viable class sizes and the cost of providing programs prevents much of that demand from being satisfied. A recent Queensland study by Newell and Scott (1987) indicates that participation rates are not affected within twenty kilometres of a facility, but from twenty to eighty kilometres, participation is effectively precluded. This sort of finding is consistent with the planning work of the non-metropolitan Victorian Regional TAFE Boards.

In Victoria in 1987, a Rural Community Services Training Project was established, in part its findings were that:

- the current tertiary training programs inadequately equip graduates to handle the special demands of service provision in rural communities;

- accessible rural based tertiary training in social work, welfare studies and other community services was needed to counter general staffing recruitment/retention problems for government and non-government agencies.

The solution was seen to be to:

- facilitate much stronger distance education course provision;

- provide clear and accessible pathways from one course or level of study to another, based on such factors as common curriculum content across courses, consistent credit for previous study, and common principles for entry;

- reservation of places for country residents;

- delivery of higher education programs through TAFE colleges in remote areas;

- provision for summer schools at TAFE colleges;

- development of bridging courses at TAFE colleges;

- greater use of community based adult education to provide accredited courses.

The Problems of Regions which cross State Borders

Co-operation between States and Territories has been a major long-standing issue and a costly burden in relation to certain services. Railways provide the best known example. The existence of separate education systems does not, on the surface, appear to impose direct costs on the community. It is generally at the individual level that the burden is borne; for instance in such matters as recognition of qualifications between states, lack of uniformity in curriculum and difficulty in transfers between States. In a number of instances such problems even exist within States. The limited number of States and Territories and the concentration of population in capital cities already separated by vast distances masks a major problem for those non-metropolitan dwellers who live in areas traversed by State borders. This is principally a problem for the following groups: NSW - Victoria, Victoria - South Australia and NSW - Queensland.

Where State borders divide a community or region which has strong economic, historic and social linkages the appropriate strategy in terms of post-secondary education provision would be to treat the area as a single entity. The provision of post-secondary education should be planned in such a way as to best utilise all resources and provide the community, regardless of home state, with a simple effective model of education which maximises options and reduces duplication. Despite the intentions of many people at the Commonwealth, State and local level to achieve such a service, in most instances what has been achieved is a complicated, confusing system which minimises options and has resulted in massive duplication.

Albury-Wodonga

The diverse educational facilities at Albury-Wodonga are a case in point. Despite the existence of Ministerial Committees, Working Parties, Boards, Secretariats and planning studies the net result at Albury-Wodonga is that there are two TAFE colleges, one for Albury and one for Wodonga, and two higher education campuses (Wodonga Institute of Tertiary Education and The Murray Campus of the Riverina-Murray Institute of Higher Education in Albury). While excellent co-operation exists at an individual, institutional, sectoral level, the reality is that the community is faced with a choice of four identifiable institutions. At least in the case of the Victorian example the development of the Institute of Tertiary Education has been designed to embrace both higher and technical education. The Commonwealth Green Paper has forced the two communities to examine yet again whether their loyalties were to the community which they are designed to serve or whether they lay with the system based hundreds of kilometres away in the State capital. Two other examples also bear examination although neither illustrates similar complexity because in both examples, the cross-state border community is much more far flung.

Tri-State Region

The Tri-State region of Sunraysia (Victoria) Far West NSW and Riverland (South Australia) represents a huge area about equivalent to the size of Victoria. It embraces about one hundred thousand people who are mainly resident in the cities of Mildura, Broken Hill and the Riverland towns of South Australia. Significantly, these communities are all much closer to each other than they are to their respective State capitals and in their isolation they have an affinity. Each has a TAFE college and there is already substantial interaction and co-operation in many areas of TAFE activity. There is little doubt that if it weren't for the 'accident of three State borders' which separate them, much greater use would have been made of the fact that they form a sort of loose region for which there is mutual benefit in co-operation.

Parkinson's study (1986) of the post-secondary education provision in the Tri-State area is limited to an examination of TAFE colleges at Mildura, Broken Hill and a multi-campus college in the Riverland. All colleges operate outreach programs through various isolated centres and Sunraysia College at Mildura is also responsible for a campus at Swan Hill some 215 kilometres to the south east. Sunraysia now provides on contract, the first year of five degree programs from Ballarat and Bendigo Colleges of Advanced Education. In the early 1980s the visionary efforts of the principals of the three TAFE colleges sought to implement a much more comprehensive and planned approach to post-secondary education. They saw that the range of programs and options available to students could reflect the choices which should be available to a community of 100,000 persons, rather than three separate communities of one-third that size. Whilst this concept may re-emerge, its failure to be implemented can be put down to three major factors.

- The individuals who were the driving force and the inspiration behind it - moved on and their replacements chose not to pursue it with such vigour.

- Each State authority was lukewarm to the concept - the path to achievement was rocky and filled with numerous logistical, administrative and organisational problems.

- Local parochial interests attached to each of the three State systems were strong and ultimately all-powerful.

One is tempted to ask how much more comprehensive provision, how many more options could have been created and how much resource duplication could have been avoided if the three States could have co-operated and allocated all their recurrent and capital grants for each of the three colleges to a single Tri-State fund. That fund could have been administered by an appropriate post-secondary education committee, their charter including the implementation of a strategic plan for the provision of a post-secondary education system which would maximise options and resources across the entire Tri-State area. In effect taking each of these colleges out of the State system much the way that the independent colleges did in WA.

Green Triangle

The continuing development of economic co-operation in the Green Triangle area of South-east South Australia and South-West Victoria embracing such communities as Mt Gambier, Millicent, Naracoorte in South Australia and Portland, Hamilton and Warrnambool in Victoria would appear to lend itself to a similar structure as I have suggested for the Tri-State area. Recent amalgamations now provide a multi-campus South-East TAFE College in South Australia and a multi-campus South-Western TAFE College in Victoria with the Warrnambool Institute of Advanced Education providing a higher education presence. To date there have already been some significant cross-State developments but again in the context of a formalised post-secondary education provision two separate state systems operate: a single regional approach has the potential to bring together a total community of some 150,000 people.

Imposition of a single model

Generally speaking a basic model of provision of post-secondary education has been developed and imposed across the nation and the States. That model or approach has been called the 'one best system' and has invariably been developed from a metropolitan perspective and therefore primarily addresses metropolitan needs. There has been little discussion in the past, of the implications of the application across Australia of a single system of post-secondary education. Smith (1975) argued that non-metropolitan post-secondary education has not generally been seen as a particular issue which required specific strategies, 'structures and arrangements have tended to be hastily copied from large metropolitan. (p.125). Since the mid 1970s further rationalisation in the higher education area has taken place but the basic model of delivery and structures remain. TAFE is now firmly established as a sector of tertiary education and the arrangements which have developed for TAFE's non-metropolitan provision have largely followed a similar model. The CTEC Working Party (1988) commented extensively on the effects of the imposition of a metropolitan model.

> The Working Party concludes that the major problem with rural education is that metropolitan structures and approaches have been, and continue to be, adopted to address rural educational needs when they may not be the most appropriate response. The metropolitan division of primary and secondary, TAFE, university and advanced education segment the educational task to a point where it is unattractive to rural people and highly expensive to operate. (p.18)

The report goes on to argue that structures are responsible for lack of course relevance and low participation.

The Failure to Examine Needs at a Regional Level

A limited array of non-metropolitan regional studies have been undertaken by the States. Some of these have lead to specific plans to address identified and documented problems. Each State has tackled issues in a manner which generally reflects the degree of central control. The size and capacity of institutions and the degree of local or regional autonomy are relevant to the type of studies which have been undertaken. Consequently the studies range from descriptive exercises with limited analyses and no specific plans for further development - generally these are the sorts of documents produced by central authorities. At the other extreme are documents which advocate a wide variety of new strategies and initiatives which should be taken to redress perceived local or regional deficiencies. These have generally been prepared by highly decentralised systems. The problems with these two extremes can be generalised by arguing that the former has little credibility with the local community whilst the latter has little credibility with the central authority. Between the two extremes have been planning studies which have been centrally co-ordinated but which have involved liaison and consultation with the local and regional community by TAFE central office staff in consultation with regional communities. Probably South Australia's regional and college studies prepared by TAFE are the best example of these. Even with this model there has been no guarantee of credibility and acceptability of reports.

It is rare that any study undertakes a comprehensive examination of a non-metropolitan region which takes into account all tertiary education sectors and relates it also to senior secondary school and the provision of short courses and adult education generally. No State appears to have given a charter for such a comprehensive examination. The Victorian Regional TAFE Board structure came closest but did not include higher education, and ultimately lacked central support. Specific studies for regions and communities in Queensland and Western Australia have also come close to this approach but they have

generally been prepared to address a major shortfall in facilities and not because of a concern to undertake a comprehensive study.

Due to a lack of commitment by governments to co-ordinated educational planning and the limited charter of State authorities there appear to be few specific policies and plans to:

- broadly address non-metropolitan issues;
- respond to the diversity of non-metropolitan needs;
- recognise and articulate a response to the diversity between non-metropolitan areas and regions.

Ramsey has commented (1987a) that the various TAFE arrangements have not always effectively facilitated the cross-sectoral developments and institutional co-operation which is being pursued. He sees centralised control of TAFE as a major problem:

> As a generalisation, TAFE is much more centrally controlled, making regional co-operation difficult, where progress can be stifled by the local TAFE staff having to have major decisions determined centralled. (p.18)

Ramsey envisages that solutions will rest on changes to administrative structures and increasing local autonomy.

The Loss of Regional Identity.

Ballarat College of Advanced Education is one of the colleges referred to by the Deakin proposal. Its Director, Dr. Sharpham, in wide criticism of the Green Paper has publicly proclaimed the regional case perhaps more openly than anyone else. In an article in The Australian of 17 February 1988 Sharpham expressed concern at the almost exclusive focus on the development of large metropolitan institutions. He states:

> What may be lost is the strong local and regional identity and support so important to the fabric of country institutions and the people they serve. There is a clear need for a continued focus on regional Australia . . . Distance education through external studies cannot cover the needs of these people. There must be recognition of our regional vitality and lifestyle and the regional institutions must be allowed to provide locus and focus.

The concerns of institutions in other regional centres have been raised. The University of New England has been vocal in its concern about the concept of a minimum of 8,000 full-time students for research funding. The New England Teachers Association's spokesperson Graham Maddox was reported in The Australian of 2 March 1988 as stating:

> . . . the proposed new system appears to be heavily biased in favour of large city institutions than their city counterparts on the basis that they provide better opportunities for otherwise disadvantaged country and mature aged external students.

Interestingly, concerns over size also extend to small metropolitan centres. The Vice Chancellor of the University of Tasmania in Hobart has pointed out (The Australian, 2 March 1988) that the University's numbers are only around 3,500, and that it was simply not possible to achieve 8,000. He argued that the whole State has the potential to produce only 2,250 graduates per year. He went on to contend that because less than half (47%) of those students commencing bachelor's degrees in 1987 enrolled within two years of completing HSC that the University would have to look at alternatives to the traditional routes. Specifically he referred to cross-accreditation and transfer from other institutions including TAFE.

A more dramatic expression of regional problems arose in the Northern Queensland area referred to earlier. The moves to establish a campus of the James Cook University of North Queensland based in Cairns are so severely inhibited by federal funding that the community has commenced its own fund-raising drive. The case being developed by the Cairns community argues that north of Bundaberg across the whole of Australia there are only three higher education institutions - James Cook University, Capricornia CAE at Rockhampton and the Darwin Institute of Technology for one million people. (The Australian, 16 December 1987).

Their report suggests that merely building more TAFE facilities does not address the problem: contracting through TAFE provides only a limited solution and is only relevant to small centres under about 30,000 persons.

When examined from a central policy viewpoint the urgency for implementing these cross-sectoral arrangements in regional areas often appears as minimal. Viewed from the perspective of the local regional community or even from advocates at the State level who have grasped the real dimensions of the problem the removal of sectoral barriers appears to be commonsense. Such a case is evident in Western Australia. White (1987) has illustrated how the development of community colleges at Port Hedland, Karratha and Kalgoorlie has arisen from a central

realisation that metropolitan models were inappropriate and that regional and local aspirations required a model tailored to their particular circumstances. The statewide 'mould' had to be broken.

White notes the initiative in the Pilbara region came from alleged problems within the TAFE system of:

- lack of responsiveness
- lack of community involvement
- bureaucratic inflexibility
- inertia (p.94).

The report on post-secondary education requirements in the Pilbara region arose not only from State Government concern but also as a result of considerable local political lobbying. Consequently two self-governing colleges were established under their own act of parliament. Subsequently, a similar college was established at Kalgoorlie and three regional colleges of TAFE created at Geraldton, Bunbury and Albany which were given councils with much enhanced planning and policy responsibilities. As White summarises:

> . . . the new institutions (the community colleges) also presented attractive solutions to a number of regional and political problems that had special relevance to the Pilbara and Kalgoorlie areas of Western Australia. Yet the soundness of reasons for promoting regional autonomy and participation in post-secondary education even cracked Labor's originally united front against the development of community colleges. (p.104).

8. PROPOSALS TO EXPAND THE PROVISION OF POST-SECONDARY EDUCATION IN NON-METROPOLITAN AUSTRALIA

It is not appropriate in non-metropolitan areas with their scattered populations to perpetuate a system of sectors and their associated institutes. Rational development and use of any community facilities demands that maximum co-operative arrangements will apply.

Hudson stated (1987):

> It makes no sense in the face of broad community demand to build buildings and then constrain their use to teaching the programs of one sector alone . . . the multi-sectoral approach has even more significance when we think of the large number of non-metropolitan communities, which are under serviced in terms of tertiary education services. (Speech delivered to the Victorian Association of Director of TAFE Colleges, 1987.)

Commenting on TAFE institutions, Hudson identified five areas where major colleges need to demonstrate flexibility in order to:

- respond to local needs in ways that may not be possible with a centrally-determined curriculum;
- negotiate credit for TAFE studies for students wishing to enter other institutions;
- enter into agreements covering resources and academic matters with other local institutions;
- provide all, or parts of higher level courses where particular TAFE institutions are identified, by reason of location, as the means of providing higher education in regional areas; and
- accept new roles and responsibilities which fall outside TAFE's traditional territory.

What is Required: Policy and Planning Approach

Policy for post-secondary education and training across non-metropolitan Australia requires:

- an articulated recognition of the essential differences between metropolitan and non-metropolitan areas in relation to demographic and labour market structure and the fundamental changes which are occurring;

- an understanding of the relative adequacy and equity of existing resource allocations to non-metropolitan Australia and between various non-metropolitan regions;

- an appropriate structure and process by which advice on the needs of non-metropolitan areas can be prepared; and

- a decision-making and resource allocation process which ensures the balanced development of all types of education throughout Australia, having regard to the needs of people who live in provincial cities, country towns and country areas.

This is a different approach from the past practice of partial recognition. A framework of procedures is required which ensures that planning, policy and resource allocation to meet the needs of non-metropolitan areas is built into the decision-making process and that strategies are derived based on these needs.

What is Required: Expanding the Option for Study

What is now required for all non-metropolitan residents regardless of the number of external providers is the implementation of two specific measures which are not related to, but may be facilitated by a reduction in the number of external providers.

1. A system which assists and encourages all students, regardless the sector or institution he or she is enrolled in, to use the nearest available tertiary education facilities, in particular libraries, learning resource centres, computers, tutorial rooms etc.

2. A publication similar to the University of Queensland's External Courses in Australia but which also provide:

    - the course details;

    - indicates the status of the credentials;

    - the credits which are given to students for units undertaken at other institutions;

    - the availability of resources through a network of post-secondary institutions.

Ideally this information should be made available not only in printed format but also be readily accessible via toll-free telephone, facsimile, and computer.

It is hoped that the 1988 edition Directory of Higher Education Courses 1988/89 compiled by Hobson's Press from information supplied by the Department of Employment, Education and Training will go some way towards filling this gap. A publication of this nature will reduce the confusion caused by a multiplicity of individual institutions advertising their range of external correspondence, off-campus studies in higher education and TAFE.

3. A system which allows more school leavers to undertake the first year of their tertiary course locally.

The key criteria is that students enrol in a course first and an institution second.

What is Required: Cross-Sectoral Regional Approaches

Restrictive State bureaucracies impede initiatives. In relation to non-metropolitan institutions, there are often other restrictions to their implementing initiatives. In many cases, particularly in TAFE, they are simply too small and their structure lacks the flexibility to respond. Their staffing is rigid and is unable to meet identified new needs. The existence in some States of a large number of small TAFE colleges mitigates against likely success of such initiatives. South Australia and Victoria are the two states which appear to have pursued the toughest lines by:

- limiting the proliferation of small non-metropolitan TAFE colleges;

- consolidating existing provision by creating multi-campus TAFE colleges or amalgamating small colleges or campuses under single administration.

The development of regionally based TAFE Colleges promotes co-operation between the higher education and the TAFE sector thus enabling them to address issues at a regional level. It is necessary for regional areas to evaluate provision in the light of the present and future needs of their region: they need to recognise the existing strengths and weaknesses and determine the directions and strategies which should be pursued. Such an approach presupposes that the current state structures have the will or capacity to facilitate or allow such changes: furthermore that the resources available to tertiary institutions in non-metropolitan areas have the capacity to accommodate change. If the States or the institutions are not prepared to tackle those problems the only recourse is to Commonwealth funding.

What is Required: The Long-Term Objective

Non-metropolitan Australia contains about 4.8 m persons or nearly one in three Australians. It is essential that the provision and development of post-school education and training for non-metropolitan Australians is planned so that it reflects the important changes which have occurred in the structure of the population and the economy and that it has a capacity to accommodate similar changes in the future.

Any examination of post-secondary education provision across Australia leads one to reflect on Hugh Hudson's words (1987):

> It was almost certainly a serious mistake to imagine that a country the size of Australia and with the geographic spread of population could operate a tertiary education system efficiently with three separate sectors. (p.14)

Ramsey (1984) succinctly stated the long-term objective against which we need to judge progress.

> We will only have a truly national system of tertiary education in this county when people of all post-school ages have simple access to which ever part meets their need and where movement for staff and students from one institution to another, from work to education and return is simple, clear and expected. (p.27)

That objective whilst framed for the whole of Australia has its greatest potential for application in non-metropolitan Australia. With the very structure of our post-secondary education system now under challenge and subject to re-organisation the time has never been more appropriate to remedy this situation.

Failure to take advantage of the current climate will again see our non-metropolitan post-secondary education system be a less than desirable adaptation of a system devised to address metropolitan problems. By accepting the challenge posed by restructuring, today's educators may be instrumental in ensuring that those who live in the rapidly expanding areas of non-metroplitan Australia may be given the opportunity to participate in post-secondary education and training.

9. CENSUS TABLES 1976-1986

As a result of this project and the statistical analysis conducted by Dr. Graeme Hugo and Mrs Margaret Young, Discipline of Geography, School of Social Sciences, Flinders University of South Australia, the TAFE National Centre for Research and Development holds a set of print-outs relating to the 1976 and 1986 Census results for the following geographical areas:

- States, metropolitan and non-metropolitan;
- Statistical divisions;
- Selected major regional centres;

Department of Local Government and Administrative Services which cover the following information:

- Totals and percentages
    - Population, males, females, total
    - Aborigines
    - Age groupings
    - Age left school
    - English or non-English speaking birthplace
    - Proficiency in English
    - Family income
    - Family composition
    - Hours worked per week
    - Migration
    - Industry
    - Labour force
    - Occupation - 8 categories
    - Level of qualification
    - Field of qualification

- Student TAFE, CAE, Univ, other F/T, P/T

- Type of education attended

The tables which have been specially prepared for this report from the census print-out are indicative of the type of material which can be gathered for major geographical groupings. The regions presented from the Department of Local Government and Administrative Services (DOLGAS) material represent the most useful statistical grouping from an educational point of view because they represent 'natural' regions based on a large geographically central provincial city. The derivation of those regions follows extensive analysis of a range of social indicators. For the purposes of this report some 39 of the 75 DOLGAS regions have been used.

Detailed analysis of the figures and trends shown in the tables and maps can be undertaken as required, but they clearly illustrate a number of important characteristics:

- population growth 1976-1986 across Australia has been very uneven;

- some rural areas (particularly dry farming areas) continue to experience population decline;

- non-metropolitan Australia clearly illustrates higher proportions of the following groupings compared with metropolitan Australia:

    - population aged 0-14;

    - population left school early;

    - low family income;

    - left school with no formal qualifications;

    - attendance and proposition of F/T attendees at post school institutions;

- significant reductions occurred between 1976 and 1986 in the percentage who left school early but some rural areas e.g. Lismore, Moree, Bundaberg, Port Lincoln and Renmark still had very high proportions;

- significant reduction occurred between 1976 and 1986 in the percentage who left school with no formal qualification, but generally non-metropolitan areas are still some 8% higher;

- there are marked variations in the proportions in non-metropolitan areas who are attending post school education, as can be expected because of the location of CAEs;

- attendance levels at TAFE colleges vary enormously, with rural areas generally below metropolitan areas but there are significant exceptions. Albany, an example in this report of an area where noteworthy initiatives have been taken, clearly shows a very high figure;

- the population of males attending TAFE colleges varies between regions but the Victorian figures are consistently higher than other states, particularly for major non-metropolitan areas;

- there are enormous variations in the proportion of the workforce participating in agricultural occupations. A simplistic assumption that non-metropolitan regions all have high proportions in agriculture is erroneous. The proportion in agriculture stabilised in many regions between 1976 and 1986;

- the proportion of the workforce in manufacturing industries fell in almost all regions between 1976 and 1986, significantly in Sydney and Melbourne, although the proportion in Melbourne is over 20% and is still very high. In some non-metropolitan regions the proportion actually increased e.g. Albury/Wodonga, Wangaratta and Bunbury, whilst major reductions occurred in Bundaberg, Townsville and Ballarat;

- employment in finance, business services, community services, personal and recreational services was a major growth area between 1976 and 1986. In metropolitan areas these occupations now account for over one-third of all employment: likewise in some non-metropolitan areas, but generally in non-metropolitan areas the proportion is between 25 and 30%. Generally the strongest growth in this sector of employment occurred in those areas which had experienced major population growth e.g. Townsville, Albury-Wodonga, Alice Springs and Cairns. Many regions dominated by agricultural employment experienced slow growth;

- employment in mining industries is a major economic force in a number of rural regions and it is generally characterised by higher income levels, higher proportions of persons with qualifications and fewer persons who have left school early.

SET OF TABLES: NO. 1

METROPOLITAN/NON-METROPOLITAN 1976-1981 & 1986 CENSUS

NO. OF PERSONS AND PERCENTAGE OF PERSONS

IN GEOGRAPHICAL GROUPINGS

AREA	1976		1981		1986	
	No. of Persons	% of Area	No. of Persons	% of Area	No. of Persons	% of Area
New South Wales						
State (S)	**4,777,103**		**5,126,217**		**5,401,881**	
Sydney - Stat. Div.	3,021,982	63.26%	3,204,696	62.52%	3,364,858	62.29%
Newcastle - Stat. Dist.	363,011	7.60%	389,237	7.59%	405,089	7.50%
Wollongong - Stat. Dist.	211,068	4.42%	222,539	4.34%	225,178	4.17%
Gold Coast - Stat. Dist. pt.	13,190	0.28%	21,869	0.43%	26,075	0.48%
Canberra - Stat. Dist. pt.	18,923	0.40%	19,383	0.38%	22,698	0.42%
Total Metropolitan (M)	**3,628,174**	**75.95%**	**3,857,724**	**75.25%**	**4,043,898**	**74.86%**
Non-Metropolitan (NM) = S-M	**1,148,929**	**24.05%**	**1,268,493**	**24.75%**	**1,357,983**	**25.14%**
Victoria						
State (S)	**3,646,981**		**3,832,443**		**4,019,478**	
Melbourne - Stat. Div.	2,604,021	71.40%	2,722,817	71.05%	2,832,893	70.48%
Geelong - Stat. Dist.	131,636	3.61%	137,173	3.58%	139,792	3.48%
Total Metropolitan (M)	**2,735,657**	**75.01%**	**2,859,990**	**74.63%**	**2,972,685**	**73.96%**
Non-Metropolitan (NM) = S-M	**911,324**	**24.99%**	**972,453**	**25.37%**	**1,046,793**	**26.04%**
Extended Metropolitan (EM)	84,035	2.30%	102,594	2.68%	127,434	3.17%
Greater Metropolitan (GM) = M+EM	2,819,692	77.32%	2,962,584	77.30%	3,100,119	77.13%
Outer Non-Metropolitan (ONM) = S-GM	827,289	22.68%	869,859	22.70%	919,359	22.87%

AREA	1976		1981		1986	
	No. of Persons	% of Area	No. of Persons	% of Area	No. of Persons	% of Area
Queensland						
State (S)	**2,037,197**		**2,295,123**		**2,587,315**	
Brisbane - Stat. Div.	957,745	47.01%	1,028,527	44.81%	1,149,401	44.42%
Gold Coast - Stat. Dist. pt.	103,005	5.06%	155,395	6.77%	204,064	7.89%
Total Metropolitan (M)	**1,060,750**	**52.07%**	**1,183,922**	**51.58%**	**1,353,465**	**52.31%**
Non-Metropolitan (NM) = S-M	**976,447**	**47.93%**	**1,111,201**	**48.42%**	**1,233,850**	**47.69%**
Extended Metropolitan (EM)	111,866	5.49%	167,373	7.29%	195,602	7.56%
Greater Metropolitan (GM) = M+EM	1,172,616	57.56%	1,351,295	58.88%	1,549,067	59.87%
Outer Non-Metropolitan (ONM) = S-GM	864,581	42.44%	943,828	41.12%	1,038,248	40.13%
Western Australia						
State (S)	**1,144,343**		**1,273,624**		**1,406,929**	
Perth Stat.Div. Total Metro (M)	**805,747**	**70.41%**	**898,918**	**70.58%**	**994,472**	**70.68%**
Non-Metropolitan (NM) = S-M	**338,596**	**29.59%**	**374,706**	**29.42%**	**412,457**	**29.32%**
Extended Metropolitan (EM)	16,805	1.47%	24,087	1.89%	31,593	2.25%
Greater Metropolitan (GM) = M+EM	822,552	71.88%	923,005	72.47%	1,026,065	72.93%
Outer Non-Metropolitan (ONM) = S-GM	321,791	28.12%	350,619	27.53%	380,864	27.07%
South Australia						
State (S)	**1,244,756**		**1,285,033**		**1,345,945**	
Adelaide Stat. Div. Total Metro (M)	**900,432**	**72.34%**	**931,886**	**72.52%**	**977,721**	**72.64%**
Non-Metropolitan (NM) = S-M	**344,324**	**27.66%**	**353,147**	**27.48%**	**368,224**	**27.36%**
Extended Metropolitan (EM)	47,368	3.81%	54,757	4.26%	65,001	4.83%
Greater Metropolitan (GM) = M+EM	947,800	76.14%	986,643	76.78%	1,042,722	77.47%
Outer Non-Metropolitan (ONM) = S-GM	296,956	23.86%	298,226	23.21%	303,223	22.53%

AREA	1976		1981		1986	
	No. of Persons	% of Area	No. of Persons	% of Area	No. of Persons	% of Area
Tasmania						
State (S)	402,866		418,957		436,353	
Hobart Stat. Div. Total Metro (M)	162,062	40.23%	168,359	40.19%	175,082	40.12%
Non-Metropolitan (NM) - S-M	240,804	59.77%	250,598	59.81%	261,271	59.88%
Australian Capital Territory						
Territory (T)	197,622		221,609		249,407	
Canberra Stat. Div. Total Metro (M)	196,538	99.45%	220,423	99.46%	248,441	99.61%
Non-Metropolitan (NM) - T - M	1,084	0.55%	1,186	0.54%	966	0.39%
Northern Territory						
Territory Non-Metropolitan (NM)	97,090		123,324		154,848	100

AREA	1976		1981		1986	
	No. of Persons	% of Area	No. of Persons	% of Area	No. of Persons	% of Area
Australia						
States and Territories	13,547,958		14,576,330		15,602,156	
Metropolitan Stat. Divs.	8,451,989	62.39%	8,955,203	61.44%	9,498,827	60.88%
Metropolitan Stat. Dists.	1,037,371	7.66%	1,166,019	8.00%	1,271,337	8.15%
Metropolitan	**9,489,360**	**70.04%**	**10121222**	**69.44%**	10,765,764	**69.00%**
Non-Metropolitan	**4,058,598**	**29.96%**	**4,455,108**	**30.56%**	**4,836,392**	**31.00%**
Extended Metropolitan	272,376	2.01%	349,911	2.40%	419,630	2.69%
Greater Metropolitan	9,761,736	72.05%	10,470,033	71.83%	11,185,394	71.69%
Outer Non-Metropolitan	3,786,222	27.95%	4,106,297	28.17%	4,416,762	28.31%

SET OF TABLES: NO. 2

METROPOLITAN/NON-METROPOLITAN

POPULATION CHANGE AND PERCENTAGE INCREASES

1976-1986 CENSUS

AREA	Total Change 1976-1986		% Change 1976-1986
New South Wales			
State (S)	**624,778**		**13.08%**
Sydney - Stat. Div.	342,876		11.35%
Newcastle - Stat. Dist.	42,078		11.59%
Wollongong - Stat. Dist.	14,110		6.69%
Gold Coast - Stat. Dist. pt.	12,885		97.69%
Canberra - Stat. Dist. pt.	3,775		19.95%
Total Metropolitan (M)	**415,724**		**11.46%**
Non-Metropolitan (NM) = S-M	**209,054**		**18.20%**
Victoria			
State (S)	**372,497**		**10.21%**
Melbourne - Stat. Div.	228,872		8.79%
Geelong - Stat. Dist.	8,156		6.20%
Total Metropolitan (M)	**237,028**		**8.66%**
Non-Metropolitan (NM) = S-M	**135,469**		**14.87%**
Extended Metropolitan (EM)	43,399		51.64%
Greater Metropolitan (GM) = M+EM	280,427		9.95%
Outer Non-Metropolitan (ONM) = S-GM	92,070		11.13%

AREA	Total Change 1976-1986	% Change 1976-1986
Queensland		
State (S)	**550,118**	**27.00%**
Brisbane - Stat. Div.	191,656	20.01%
Gold Coast - Stat. Dist. pt.	101,059	98.11%
Total Metropolitan (M)	**292,715**	**27.60%**
Non-Metropolitan (NM) = S-M	**257,403**	**26.36%**
Extended Metropolitan (EM)	83,736	74.85%
Greater Metropolitan (GM) = M+EM	376,451	32.10%
Outer Non-Metropolitan (ONM) = S-GM	173,667	20.09%
Western Australia		
State (S)	**262,586**	**22.95%**
Perth Stat.Div. Total Metro (M)	**188,725**	**23.42%**
Non-Metropolitan (NM) = S-M	**73,861**	**21.81%**
Extended Metropolitan (EM)	14,788	88.00%
Greater Metropolitan (GM) = M+EM	203,513	24.74%
Outer Non-Metropolitan (ONM) = S-GM	59,073	18.36%
South Australia		
State (S)	101,189	**8.13%**
Adelaide Stat. Div. Total Metro (M)	**77,289**	**8.58%**
Non-Metropolitan (NM) = S-M	**23,900**	**6.94%**
Extended Metropolitan (EM)	17,633	37.23%
Greater Metropolitan (GM) = M+EM	94,922	10.01%
Outer Non-Metropolitan (ONM) = S-GM	6,267	2.11%

AREA	Total Change 1976-1986	% Change 1976-1986
Tasmania		
State (S)	33,487	8.31%
Hobart Stat. Div. Total Metro (M)	13,020	8.03%
Non-Metropolitan (NM) = S-M	20,467	8.50%
Australian Capital Territory		
Territory (T)	51,785	26.20%
Canberra Stat. Div. Total Metro (M)	51,903	26.41%
Non-Metropolitan (NM) = T - M	-118	-10.89%
Northern Territory		
Territory Non-Metropolitan (NM)	57,758	59.49%

AREA	Total Change 1976-1986		% Change 1976-1986
Australia			
States and Territories	2,054,198		**15.16%**
Metropolitan Stat. Divs.	1,046,838		12.39%
Metropolitan Stat. Dists.	233,966		22.55%
Metropolitan	**1,276,404**		**13.45%**
Non-Metropolitan	**777,794**		**19.16%**
Extended Metropolitan	147,254		54.06%
Greater Metropolitan	1,423,658		14.58%
Outer Non-Metropolitan	630,540		16.65%

SET OF TABLES: NO. 3

VICTORIAN URBAN LOCAL GOVERNMENT AREAS (LGAs):

OVER 10,000 AND OVER 5,000 PERSONS

POPULATION 1976-1981-1986, POPULATION AND CHANGE

PERCENTAGE CHANGE 1976-1986

AREA	1976	1981	1986	Change 1976-86	% Chang 1976-8
Urban L.G.A.s > 10,000					
Bairnsdale (T)	9,130	9,459	10,328	1,198	13.12%
Horsham (C)	11,647	12,034	12,174	527	4.52%
Mildura (C)	14,417	15,763	18,382	3,965	27.50%
Moe (C)	15,345	16,649	16,999	1,654	10.78%
Portland (T)	8,298	9,353	10,934	2,636	31.77%
Sale (C)	12,111	12,968	13,559	1,448	11.96%
Traralgon (C)	15,299	18,057	19,233	3,934	25.71%
Wangaratta (C)	16,075	16,202	16,598	523	3.25%
Warrnambool (C)	20,792	21,414	22,706	1,914	9.21%
Total Urban L.G.A.s > 10,000	123,114	131,899	140,913	17,799	14.46%
Urban L.G.A.s > 5,000					
Ararat (C)	8,288	8,336	8,015	-273	-3.29%
Benalla (C)	8,300	8,151	8,490	190	2.29%
Castlemaine (C)	6,675	6,564	6,603	-72	-1.08%
Colac (C)	9,582	9,666	9,532	-50	-0.52%
Echuca (C)	7,873	7,943	8,409	536	6.81%
Hamilton (C)	9,504	9,751	9,969	465	4.89%
Kyabram (T)	5,122	5,414	5,342	220	4.30%
Maryborough (C)	7,569	7,858	7,705	136	1.80%
Stawell (T)	6,150	6,160	6,252	102	1.66%
Swan Hill (C)	7,857	8,398	8,831	974	12.40%
Wonthaggi (B)	4,889	5,165	5,931	1,042	21.31%
Total Urban L.G.A.s > 5,000	81,809	83,406	85,079	3,270	4.00%

TABLE NO. 4

VICTORIAN STATISTICAL DIVISIONS

CENSUS POPULATION, PERCENTAGE SHARE 1976, 1981, 1986

POPULATION CHANGE AND PERCENTAGE INCREASE 1976-1986

POPULATION CHANGE 1976 - 1986	Victorian Statistical Divisions							
Statistical Division	1976	% Share	1981	% Share	1986	% Share	Change 76-86	% Incr.76-86
MELBOURNE	2,604,021	71.40%	2,722,817	71.05%	2,832,893	70.48%	228,872	8.79%
BARWON	181,008	4.96%	192,195	5.01%	202,905	5.05%	21,897	12.10%
STH.WEST	95,953	2.63%	96,903	2.53%	98,712	2.46%	2,759	2.88%
CENT.HIGH.	109,334	3.00%	115,968	3.03%	124,610	3.10%	15,276	13.97%
WIMMERA	54,456	1.49%	53,234	1.39%	51,606	1.28%	-2,850	-5.23%
N.MALLEE	68,565	1.88%	71,216	1.86%	73,813	1.84%	5,248	7.65%
LOD.CAMPASPE	135,085	3.70%	146,025	3.81%	157,827	3.93%	22,742	16.84%
GOULBURN	120,734	3.31%	129,486	3.38%	139,272	3.46%	18,538	15.35%
NTH.EASTERN	72,201	1.98%	77,289	2.02%	85,106	2.12%	12,905	17.87%
E.GIPPSLAND	52,174	1.43%	55,813	1.46%	60,491	1.50%	8,317	15.94%
C.GIPPSLAND	117,609	3.22%	129,693	3.38%	139,450	3.47%	21,841	18.57%
E.CENTRAL	34,136	0.94%	39,704	1.04%	49,014	1.22%	14,878	43.58%
O.SHORE&MIG.	1,705	0.05%	2,100	0.05%	3,779	0.09%	2,074	121.64%
Non-metro	1,042,960	28.60%	1,109,626	28.95%	1,186,585	29.52%	143,625	13.77%
Total	3646981	100.00%	3832443	100.00%	4019478	100.00%	372,497	10.21%

SET OF TABLES: NO. 5

DEPARTMENT OF LOCAL GOVERNMENT

AND ADMINISTRATIVE SERVICES

SELECTED REGIONS

A. Persons 1976, 1986
Change 1976-1986
Percentage change 1976-1986

B. Percentage of population ages 0-14 1976, 1986
" " " " change 1976-1986
Percentage of population left school <16
1976,1986
Percentage of population left school <16 change
1976-1986

C. Family income percentage less than $15,000, 1986
No formal qualification percentage left school
1976-1986
Percentage change 1976-1986

D. TAFE, CAE and university students 1986
Percentage attending full-time, part-time,
total + percentage of total full-time

E. TAFE college students 1986
Males, females, total, percentage males,
percentage of total population

F. Employed in industry
- Percentage in agriculture 1976-1986
- Percentage in manufacturing 1976-1986 and
G. Percentage change 1976-1986
- Percentage in finance, property, business
services, community services, recreational,
personal and other services, 1976, 1986,
Percentage Change 1976-1986
- Percentage in mining 1976-1986

TABLE A

AREA DOLGAS REGIONS	TOTAL PERSONS			
	1976	1986	CHANGE 1976-86	% Change 1976-86
Sydney	2,882,844	3,364,858	482,014	16.72%
Melbourne	2,605,921	2,826,381	220,460	8.46%
Brisbane	900,949	1,118,399	217,450	24.14%
Adelaide	1,006,982	1,039,120	32,138	3.19%
Perth	739,556	1,029,167	289,611	39.16%
Total Metro Regions	8,136,252	9,377,925	1,241,673	15.26%
Wagga Wagga	92,266	97,351	5,085	5.51%
Townsville	138,103	160,087	21,984	15.92%
Albury-Wodonga	74,095	92,269	18,174	24.53%
Goulburn	35,216	35,246	30	0.09%
Lismore	112,797	159,576	46,779	41.47%
Orange	73,031	75,360	2,329	3.19%
Tamworth	68,388	75,200	6,812	9.96%
Ballarat	96,737	105,115	8,378	8.66%
Bendigo	112,389	125,322	12,933	11.51%
Shepparton	119,353	130,150	10,797	9.05%
Wangaratta	60,511	68,530	8,019	13.25%
Warrnambool	36,116	37,800	1,684	4.66%
Burnie	100,255	106,685	6,430	6.41%
Launceston	112,426	123,909	11,483	10.21%
Hamilton	48,173	52,732	4,559	9.46%
Alice Springs	22,549	31,304	8,755	38.83%
Mount Isa	45,902	42,989	-2,913	-6.35%
Kalgoorlie	41,906	48,308	6,402	15.28%
Port Hedland	56,638	77,835	21,197	37.43%
Moree	102,293	105,391	3,098	3.03%
Colac	37,782	41,597	3,815	10.10%
Horsham	62,502	56,927	-5,575	-8.92%
Mildura	70,007	77,204	7,197	10.28%
Bundaberg	56,598	61,536	4,938	8.72%
Cairns	122,149	167,387	45,238	37.04%
Mackay	89,569	121,961	32,392	36.16%
Port Lincoln	28,462	30,105	1,643	5.77%
Albany	30,594	35,860	5,266	17.21%
Geraldton	44,711	57,468	12,757	28.53%
Bunbury	66,440	86,169	19,729	29.69%
Narrogin	34,911	31,379	-3,532	-10.12%
Northam	41,236	36,688	-4,548	-11.03%
Mount Gambier	62,539	64,488	1,949	3.12%
Renmark	29,540	32,086	2,546	8.62%

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TABLE B

AREA DOLGAS REGIONS	% of POP'N, AGES 0-14			% of Pop'n Left School<16		
	1976	1986	CHANGE 1976-86	1976	1986	CHANGE 1976-86
Sydney	25.19	22.17	-3.02	40.26	33.49	-6.77
Melbourne	26.55	21.87	-4.68	35.88	30.4	-5.48
Brisbane	26.43	23.08	-3.35	43.46	40.51	-2.95
Adelaide	25.84	21.06	-4.78	40.88	36.88	-4
Perth	26.85	23.01	-3.84	43.64	40.3	-3.34
Wagga Wagga	29.35	26.36	-2.99	39.96	35.75	-4.21
Townsville	29.04	24.81	-4.23	43.14	41.04	-2.1
Albury-Wodonga	29.71	25.75	-3.96	38.78	32.86	-5.92
Goulburn	28.64	24.19	-4.45	40.06	38.29	-1.77
Lismore	27.39	24.27	-3.12	44.9	40.88	-4.02
Orange	29.42	26.18	-3.24	41	37.45	-3.55
Tamworth	29.65	25.96	-3.69	41.02	37.54	-3.48
Ballarat	29.37	24.97	-4.4	41.56	36.44	-5.12
Bendigo	28.13	24.81	-3.32	41.9	37.06	-4.84
Shepparton	31.32	26.07	-5.25	39.76	36.11	-3.65
Wangaratta	29.18	24.42	-4.76	38.56	34.16	-4.4
Warrnambool	29.54	24.66	-4.88	39.5	35.09	-4.41
Burnie	31.7	26.09	-5.61	40.26	39.79	-0.47
Launceston	28.16	24.08	-4.08	40.66	39.36	-1.3
Hamilton	28.48	24.77	-3.71	40.92	35.34	-5.58
Alice Springs	34.1	27	-7.1	27.3	27	-0.3
Mount Isa	33.6	27.61	-5.99	37.5	39.31	1.81
Kalgoorlie	32.58	26.59	-5.99	43.14	41.82	-1.32
Port Hedland	31.08	27.65	-3.43	32.28	33.27	-0.99
Moree	31.58	26.49	-5.09	41.02	38.6	-2.42
Colac	29.54	25.81	-3.73	43.1	38.17	-4.93
Horsham	29.04	23.85	-5.19	42.1	37.56	-4.54
Mildura	29.78	24.89	-4.89	41.54	37.44	-4.1
Bundaberg	28.74	24.78	-3.96	52.12	50.74	-1.38
Cairns	29.75	25.26	-4.49	41.38	39.19	-2.19
Mackay	30.22	26.93	-3.29	47.34	44.48	-2.86
Port Lincoln	31.48	27.2	-4.28	42.68	38.92	-3.76
Albany	30.53	26.52	-4.01	44.86	42.88	-1.98
Geraldton	32.31	27.56	-4.75	41.46	39.97	-1.49
Bunbury	29.97	27.46	-2.51	47.06	44.4	-2.66
Narrogin	32.34	29.08	-3.26	43.7	40.09	-3.61
Northam	32.28	28.29	-3.99	43.66	41.35	-2.31
Mount Gambier	30.81	25.98	-4.83	42.22	40.09	-2.13
Renmark	28.86	24.78	-4.08	43.04	42.26	-0.78

TABLE C

AREA DOLGAS REGIONS	FAMILY INCOME 1986 % <$15,000	NO FORMAL QUALIFICATIONS % Left School 1976	1986	CHANGE 1976-86
Sydney	19.76	79.32	66.54	-12.78
Melbourne	18.15	80.44	65.81	-14.63
Brisbane	21.79	81.12	69.75	-11.37
Adelaide	25.09	79 08	70.34	-8.74
Perth	22.58	77.32	66.79	-10.53
Wagga Wagga	30.94	82.78	71.93	-10.85
Townsville	24.17	81.68	73.06	-8.62
Albury-Wodonga	24.08	83.2	70.13	-13.07
Goulburn	26.9	82.88	72.28	-10.6
Lismore	39.04	85 68	71.63	-14.05
Orange	32.27	83.98	73.73	-10.25
Tamworth	30.4	83.38	72.87	-10.51
Ballarat	28 1	84.42	73.75	-10.67
Bendigo	29.89	84.16	73.86	-10.3
Shepparton	29.84	85.22	74.74	-10.48
Wangaratta	27.79	83.7	73.33	-10.37
Warrnambool	26.67	86.24	76.26	-9.98
Burnie	27.15	83 38	75.88	-7.5
Launceston	27.93	83.54	74.48	-9.06
Hamilton	26.64	85 22	74.74	-10.48
Alice Springs	19.92	80.36	70 61	-9.75
Mount Isa	19 35	82.58	73 19	-9.39
Kalgoorlie	21.48	80.36	73.45	-6.91
Port Hedland	16.43	75.8	68.03	-7.77
Moree	33.75	86.98	77.82	-9.16
Colac	32.15	85 64	76.62	-9.02
Horsham	32.93	86.8	77.27	-9.53
Mildura	31.89	86.88	77.87	-9.01
Bundaberg	35.87	83 68	76.62	-7.06
Cairns	30.29	82.44	71.69	-10.75
Mackay	23.33	83 22	72.67	-10.55
Port Lincoln	36.43	84.92	76.57	-8.35
Albany	33.67	82.94	73.43	-9.51
Geraldton	27.46	80.32	73.28	-7.04
Bunbury	29.41	83.48	72.35	-11.13
Narrogin	31.49	85.48	78.87	-6.61
Northam	30.61	85.22	77.91	-7.31
Mount Gambier	28.91	84.56	77.24	-7.32
Renmark	33.87	86.8	79.51	-7.29

TABLE D

AREA DOLGAS REGIONS	TAFE,CAE,UNIV students % attending 1986 Full-Time	Part-Time	Total	% of total F/T
Sydney	63,188	108,477	171,665	36.81%
Melbourne	64,831	79,614	144,445	44.88%
Brisbane	20,410	28,204	48,614	41.98%
Adelaide	20,816	34,010	54,826	37.97%
Perth	21,884	36,116	58,000	37.73%
Wagga Wagga	1,778	2,776	4,554	39.04%
Townsville	2,910	3,156	6,066	47.97%
Albury-Wodonga	1,369	2,402	3,771	36.30%
Goulburn	286	871	1,157	24.72%
Lismore	1,890	3,250	5,140	36.77%
Orange	762	2,192	2,954	25.80%
Tamworth	520	2,246	2,766	18.80%
Ballarat	1,601	2,069	3,670	43.62%
Bendigo	1,656	2,433	4,089	40.50%
Shepparton	781	2,347	3,128	24.97%
Wangaratta	672	1,298	1,970	34.11%
Warrnambool	737	742	1,479	49.83%
Burnie	982	2,137	3,119	31.48%
Launceston	1,775	2,606	4,381	40.52%
Hamilton	239	702	941	25.40%
Alice Springs	256	551	807	31.72%
Mount Isa	244	665	909	26.84%
Kalgoorlie	427	1,197	1,624	26.29%
Port Hedland	473	1,866	2,339	20.22%
Moree	736	1,879	2,615	28.15%
Colac	229	538	767	29.86%
Horsham	429	706	1,135	37.80%
Mildura	487	1,331	1,818	26.79%
Bundaberg	582	745	1,327	43.86%
Cairns	1,318	2,181	3,499	37.67%
Mackay	747	1,636	2,383	31.35%
Port Lincoln	57	452	509	11.20%
Albany	401	978	1,379	29.08%
Geraldton	573	1,200	1,773	32.32%
Bunbury	857	1,978	2,835	30.23%
Narrogin	205	335	540	37.96%
Northam	246	508	754	32.63%
Mount Gambier	209	1,317	1,526	13.70%
Renmark	87	522	609	14.29%

TABLE E

AREA DOLGAS REGIONS	TAFE COLLEGE 1986 Males	Females	Total	% males	% of total pop
Sydney	45730	32273	78003	58.63%	2.32%
Melbourne	32636	18183	50819	64.22%	1.80%
Brisbane	8059	5931	13990	57.61%	1.25%
Adelaide	12968	10312	23280	55.70%	2.24%
Perth	15011	12248	27259	55.07%	2.65%
Wagga Wagga	886	1012	1898	46.68%	1.95%
Townsville	1074	860	1934	55.53%	1.21%
Albury-Wodonga	1017	733	1750	58.11%	1.90%
Goulburn	370	359	729	50.75%	2.07%
Lismore	1103	1359	2462	44.80%	1.54%
Orange	910	1098	2008	45.32%	2.66%
Tamworth	941	1058	1999	47.07%	2.66%
Ballarat	898	498	1396	64.33%	1.33%
Bendigo	1156	630	1786	64.73%	1.43%
Shepparton	1135	807	1942	58.44%	1.49%
Wangaratta	712	398	1110	64.14%	1.62%
Warrnambool	262	282	544	48.16%	1.44%
Burnie	1053	1018	2071	50.85%	1.94%
Launceston	1099	996	2095	52.46%	1.69%
Hamilton	297	121	418	71.05%	0.79%
Alice Springs	189	171	360	52.50%	1.15%
Mount Isa	203	174	377	53.85%	0.88%
Kalgoorlie	517	502	1019	50.74%	2.11%
Port Hedland	810	609	1419	57.08%	1.82%
Moree	654	818	1472	44.43%	1.40%
Colac	227	116	343	66.18%	0.82%
Horsham	334	207	541	61.74%	0.95%
Mildura	686	529	1215	56.46%	1.57%
Bundaberg	285	226	511	55.77%	0.83%
Cairns	725	706	1431	50.66%	0.85%
Mackay	612	393	1005	60.90%	0.82%
Port Lincoln	177	157	334	52.99%	1.11%
Albany	482	522	1004	48.01%	2.80%
Geraldton	602	525	1127	53.42%	1.96%
Bunbury	992	814	1806	54.93%	2.10%
Narrogin	166	117	283	58.66%	0.90%
Northam	236	150	386	61.14%	1.05%
Mount Gambier	663	446	1109	59.78%	1.72%
Renmark	235	203	438	53.65%	1.37%

TABLE F

AREA	INDUSTRY				
DOLGAS REGIONS	% in Agric.		% in Manuf.		CHANGE
	1976	1986	1976	1986	76-86
Sydney	0.8		23.57	16.74	-6.83
Melbourne	0.94	0.81	27.1	20.46	-6.64
Brisbane	1.48	1.24	16.73	13.85	-2.88
Adelaide	2.93	2.35	22.4	16.94	-5.46
Perth	1.75	2.12	16.02	13.05	-2.97
Wagga Wagga	22.43	18.8	7.62	7.42	-0.2
Townsville	10.5	8.6	14.15	9.78	-4.37
Albury-Wodonga	13.38	8.9	14.15	15.26	1.11
Goulburn	21.91	18.74	8.04	6.95	-1.09
Lismore	17.41	13.32	11.93	9.16	-2.77
Orange	23.43	20.4	15.74	11.85	-3.89
Tamworth	22.82	19.09	8.31	8.26	-0.05
Ballarat	10.51	8.09	24.4	17.04	-7.36
Bendigo	20.71	15.42	15.86	13 52	-2.34
Shepparton	28.63	22.24	11.6	11.38	-0.22
Wangaratta	23.43	15.41	14.05	14.81	0.76
Warrnambool	24.66	18.15	15.42	12.52	-2.9
Burnie	11.27	11.09	19.35	16 55	-2.8
Launceston	9.81	9.37	19.76	16.73	-3.03
Hamilton	31.3	23.91	12.02	10.61	-1.41
Alice Springs	8.02	2.55	2.84	4.31	1.47
Mount Isa	14.24	15 48	2.42	3.72	1.3
Kalgoorlie	13.39	10.21	5.43	5.02	-0.41
Port Hedland	4.62	5.3	3.23	2.75	-0.48
Moree	35.41	33.43	6.37	4.68	-1.69
Colac	34.75	32.28	11.53	10.17	-1.36
Horsham	37.87	30.22	6.66	6.34	-0.32
Mildura	34.78	28.44	4.26	5.11	0.85
Bundaberg	22.03	21.25	17.6	11.67	-5.93
Cairns	16.7	12.2	11.5	8.71	-2.79
Mackay	19.78	13.54	12.27	9.32	-2.95
Port Lincoln	36.14	31.52	6.47	5.17	-1.3
Albany	32.92	31.2	9.15	6.63	-2.52
Geraldton	28.22	22.72	4.92	5.79	0.87
Bunbury	20.03	16.72	14.06	14.01	0.05
Narrogin	51.08	50.11	3.64	3.08	-0.56
Northam	42.48	39.75	4.71	3.32	-1.39
Mount Gambier	29.99	28.22	16.69	14.82	-1.87
Renmark	36.25	31.31	9.45	9.78	0.33

TABLE G

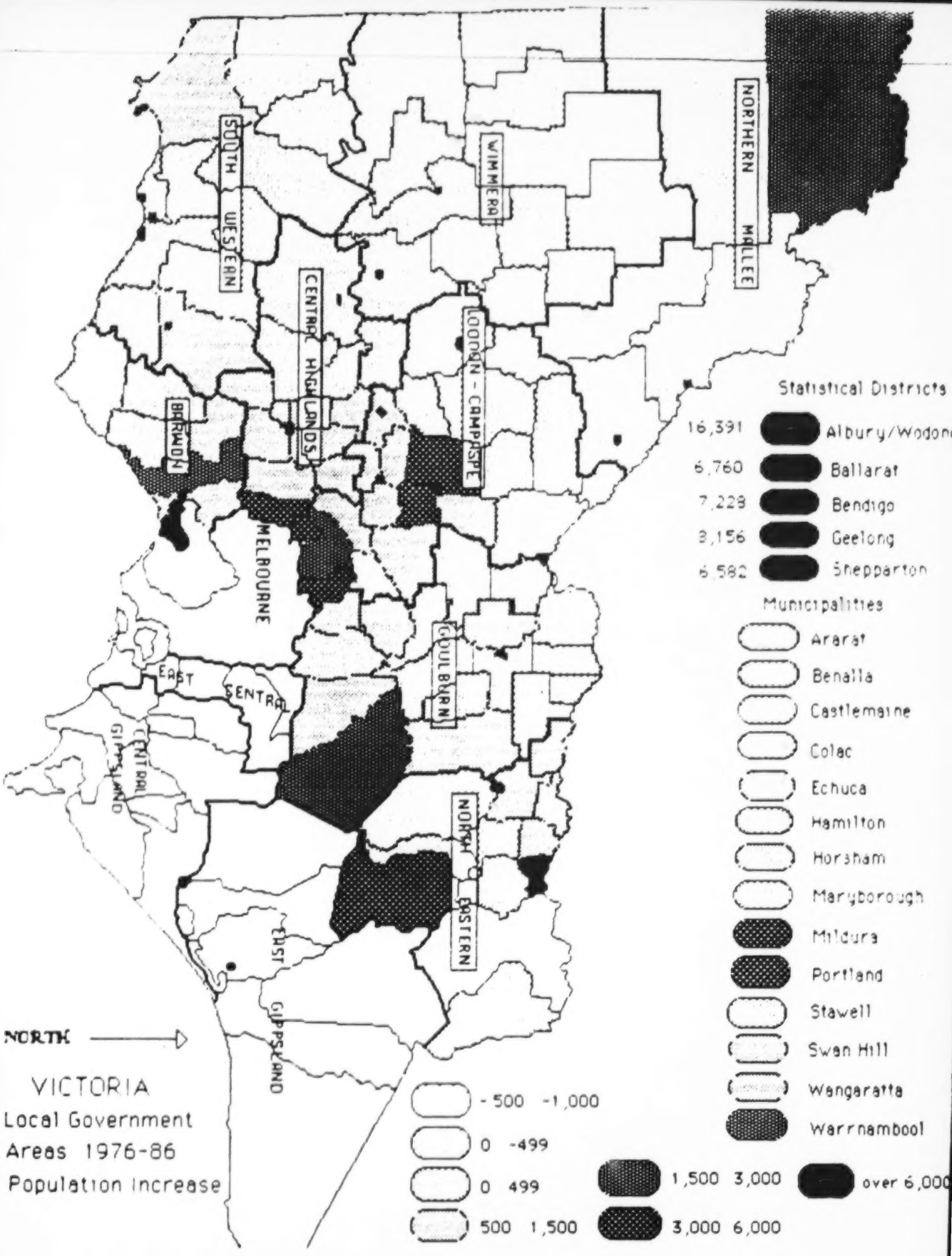
AREA DOLGAS REGIONS	% in Fin. Prop. Bus. Serv. Comm. Serv. Rec. Pers & Other Serv.			% in Mining	
	1976	1986	CHANGE 1976-86	1976	1986
Sydney	27.2	36.88	9.68	0.36	0.37
Melbourne	25.82	34.19	8.37	0.24	0.21
Brisbane	29.25	35.2	5.95	0.89	0.71
Adelaide	28.46	37.26	8.8	0.42	0.64
Perth	31.34	37.79	6.45	0.91	1.4
Wagga Wagga	21.24	27.77	6.53	0.47	0.41
Townsville	22.93	31.42	8.49	0.6	0.68
Albury-Wodonga	21.86	29.52	7.66	0.21	0.18
Goulburn	25.51	30.03	4.52	1.41	2.63
Lismore	24.29	34.69	10.4	1.01	0.26
Orange	21.65	29.63	7.98	0.08	0.28
Tamworth	22.03	28.57	6.54	2.04	1.64
Ballarat	25.59	34.41	8.82	0.33	0.37
Bendigo	23.09	30.59	7.5	0.45	0.38
Shepparton	18.31	25.5	7.19	0.13	0.11
Wangaratta	22.87	30.45	7.58	0.19	0.27
Warrnambool	22.12	30.12	8	0.21	0.23
Burnie	19.36	26.09	6.73	8.99	6.53
Launceston	24.53	32.43	7.9	0.9	0.72
Hamilton	20.34	26.87	6.53	0.23	0.16
Alice Springs	27.88	41.3	13.42	4.13	1.94
Mount Isa	16.51	23.19	6.68	24.99	22.42
Kalgoorlie	20.27	24.53	4.26	19.46	25.03
Port Hedland	20.03	25.51	5.48	28.92	30.27
Moree	18.38	22.15	3.77	1.06	1.12
Colac	18.47	23.82	5.35	0.27	0.28
Horsham	18.92	26.79	7.87	0.09	0.52
Mildura	20.51	26.93	6.42	0.26	0.15
Bundaberg	19.73	26.18	6.45	0.14	0.28
Cairns	22.16	31.27	9.11	1.47	3.06
Mackay	17.68	24.96	7.28	5.27	11.28
Port Lincoln	16.37	24.52	8.15	0.33	0.6
Albany	18.45	24.83	6.38	0.13	0.2
Geraldton	18.03	25.84	7.81	4.31	6.21
Bunbury	18.89	25.83	6.94	4.87	5.5
Narrogin	19.52	17.08	-2.44	0.25	0.3
Northam	16.01	19.75	3.74	0.17	0.96
Mount Gambier	18.8	22.76	3.96	0.33	0.28
Renmark	16.98	22.99	6.01	0.07	0.09

10. APPENDIX : MAPS

MAP 1

VICTORIA: SELECTED LOCAL GOVERNMENT AREAS

POPULATION CHANGE 1976-1986


SOUTH WESTERN
WIMMERA
NORTHERN MALLEE
CENTRAL HIGHLANDS
LODDON - CAMPASPE
BARWON
MELBOURNE
GOULBURN
EAST CENTRAL
GIPPSLAND CENTRAL
NORTH EASTERN
EAST GIPPSLAND
Statistical Districts
16,391 Albury/Wodonga
6,760 Ballarat
7,228 Bendigo
8,156 Geelong
6,582 Shepparton
Municipalities
Ararat
Benalla
Castlemaine
Colac
Echuca
Hamilton
Horsham
Maryborough
Mildura
Portland
Stawell
Swan Hill
Wangaratta
Warrnambool
NORTH
VICTORIA
Local Government
Areas 1976-86
Population Increase
- 500 -1,000
0 -499
0 499
500 1,500
1,500 3,000
3,000 6,000
over 6,000

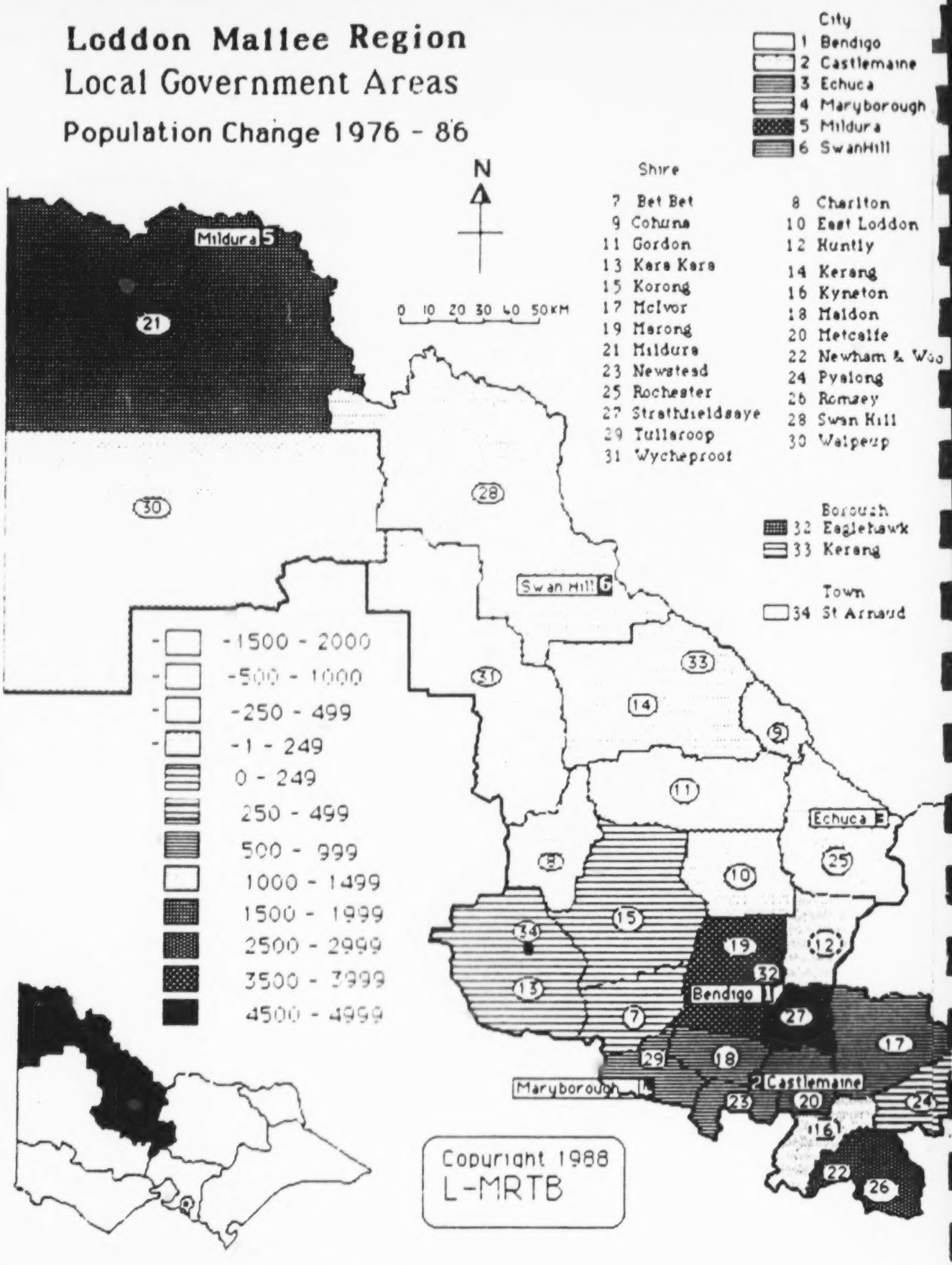
105

MAP 2

VICTORIA: LODDON-MALLEE REGION

LOCAL GOVERNMENT AREAS

POPULATION CHANGE 1976-1986


Loddon Mallee Region
Local Government Areas
Population Change 1976 - 86
City
1 Bendigo
2 Castlemaine
3 Echuca
4 Maryborough
5 Mildura
6 SwanHill
N
0 10 20 30 40 50KM
Shire
7 Bet Bet
8 Charlton
9 Coluna
10 East Loddon
11 Gordon
12 Huntly
13 Kara Kara
14 Kerang
15 Korong
16 Kyneton
17 McIvor
18 Maldon
19 Marong
20 Metcalfe
21 Mildura
22 Newham & Woo
23 Newstead
24 Pyalong
25 Rochester
26 Romsey
27 Strathfieldsaye
28 Swan Hill
29 Tullaroop
30 Walpeup
31 Wycheproof
Borough
32 Eaglehawk
33 Kerang
Town
34 St Arnaud
-1500 - 2000
-500 - 1000
-250 - 499
-1 - 249
0 - 249
250 - 499
500 - 999
1000 - 1499
1500 - 1999
2500 - 2999
3500 - 3999
4500 - 4999
Mildura 5
Swan Hill 6
Echuca 3
Bendigo 1
Maryborough 4
Castlemaine 2
Copyright 1988
L-MRTB

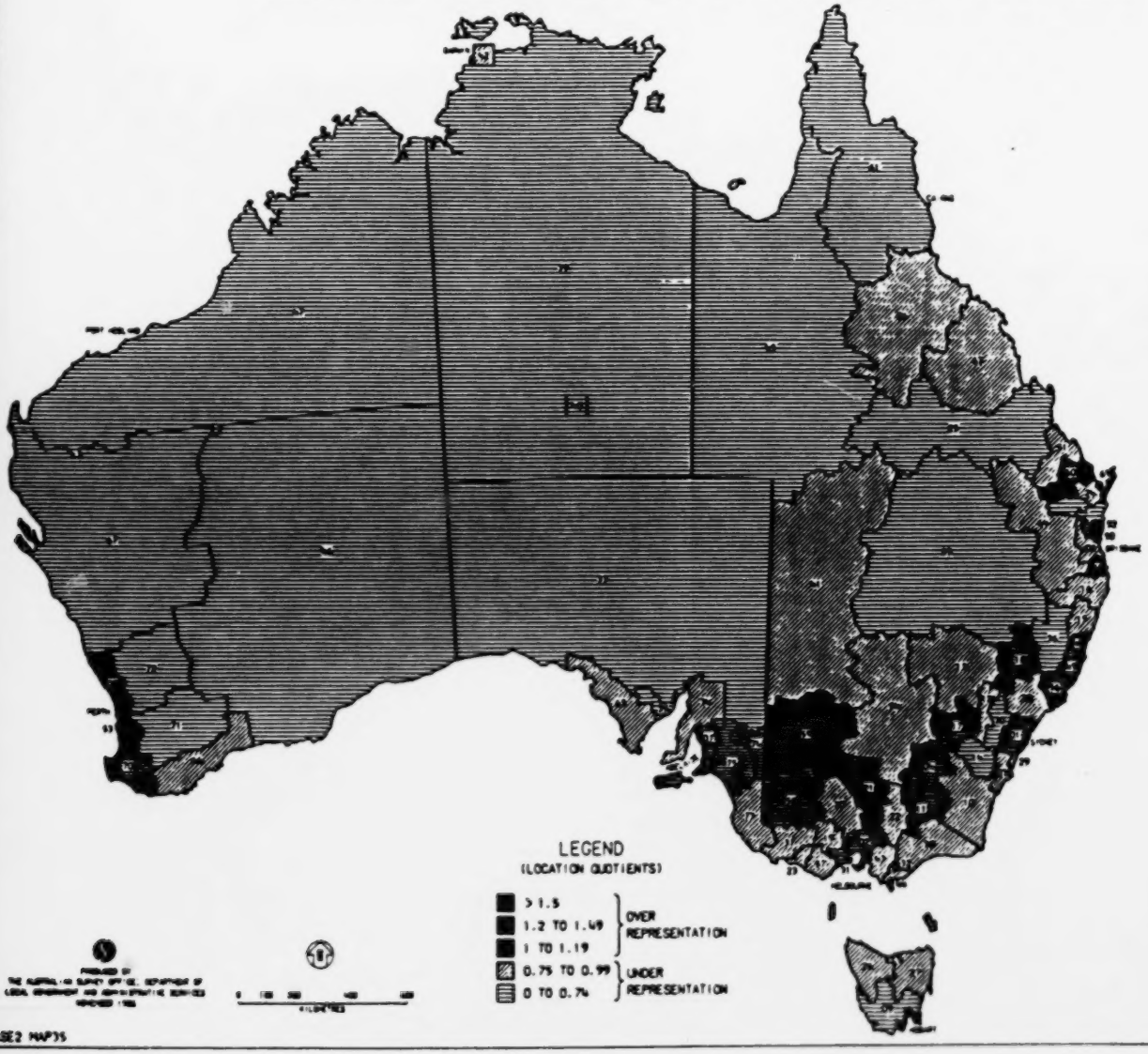
MAP 3

DEPARTMENT OF LOCAL GOVERNMENT

AND ADMINISTRATIVE SERVICES

REGIONS

COMMUNITY AND PERSONAL SERVICES
- REGIONAL LOCALISATION OF PERSONAL SERVICES -



BASE2 MAPS

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